XR-7080/7082/7180

SERVICE MANUAL

US Model
Canadian Model
XR-7180
AEP Model
XR-7080/7082
E Model
XR-7080

Photo: XR-7180

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
14 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 40–20,000 Hz with no more than 1% total harmonic distortion.

Other Specifications

Power amplifier section

Outputs — Speaker outputs (sure seal connectors)
Speaker impedance — 4–8 ohms
Maximum power output
27 W × 2 (at 4 ohms)*
9 W × 4 (at 4 ohms)*
*Measured at 14.4 V

Cassette player section

Tape track — 4-track 2-channel stereo
Frequency response — 30–18,000 Hz

Signal-to-noise ratio

Cassette type	Dolby B	Dolby C (XR-7180)	Dolby off
TYPE II, IV	66 dB	76 dB	58 dB
TYPE I	63 dB	73 dB	55 dB

Wow and flutter — 0.1% (WRMS)

Tuner section

FM

Tuning range — XR-7180: 87.9–107.9 MHz
XR-7080/7082: 87.5–108.0 MHz
Antenna terminal — External antenna connector
Usable sensitivity — 12 dBf (75 ohms)
Selectivity — 75 dB at 400 kHz
Signal-to-noise ratio — 65 dB (stereo), 70 dB (mono)
Harmonic distortion at 1 kHz
0.5% (stereo), 0.3% (mono)
Separation — 35 dB at 1 kHz
Frequency response — 30–15,000 Hz
Capture ratio — 2 dB

Model Name Using Similar Mechanism	XR-7200
Tape Transport Mechanism Type	MG-55D-31

AM

Tuning range — XR-7180: 530–1,710 kHz
XR-7080/7082:
531–1,602 kHz (at 9 kHz step)
530–1,620 kHz (at 10 kHz step)
Antenna terminal — External antenna connector
Sensitivity — 35 μV

General

Output lead — Power antenna relay control lead
Line output connector
Remote control output lead (for auxiliary input)
Amplifier remote control lead
Input lead — Auxiliary input connector
Remote control input lead (for auxiliary input)
Tone controls — Bass ±10 dB at 100 Hz
Treble ±10 dB at 10 kHz
Loudness — +10 dB at 100 Hz
+6 dB at 10 kHz
Power requirements — 12 V DC car battery (negative ground)
Dimensions (without bracket)
Approx. 178 x 50 x 153 mm (w/h/d)
(7 1/8 x 2 x 6 1/8 inches)
not incl. projecting parts and controls

— Continued on next page —

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

FM/AM CASSETTE CAR STEREO

SONY®

Mounting demensions	
	Approx. 182 x 53 x 145 mm (w/h/d) (7 1/4 x 2 1/8 x 5 3/4 inches) not incl. projecting parts and controls
Weight	Approx. 1.9 kg (4 lb 3 oz)
Accessory supplied	Mounting hardware (1 set)

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[NOTE ON REPAIRING]

- **Note on Repairing AMP Board**
  When repairing AMP Board removed from the chassis as shown in Fig. 1, check or repair it connected with lead wires and such like.
  When Checking AMP Board separately, connect with a lead wire between ground patterns as shown in Fig. 2.

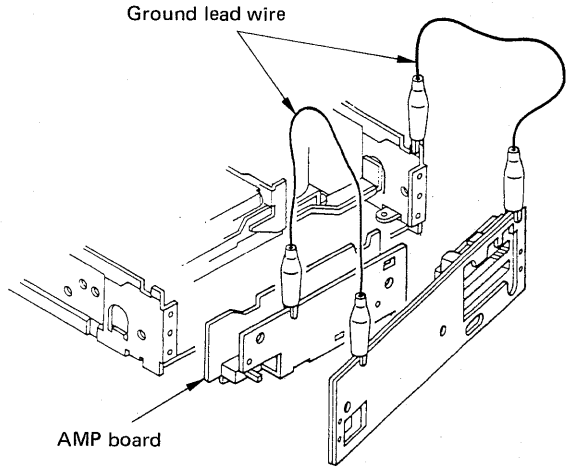
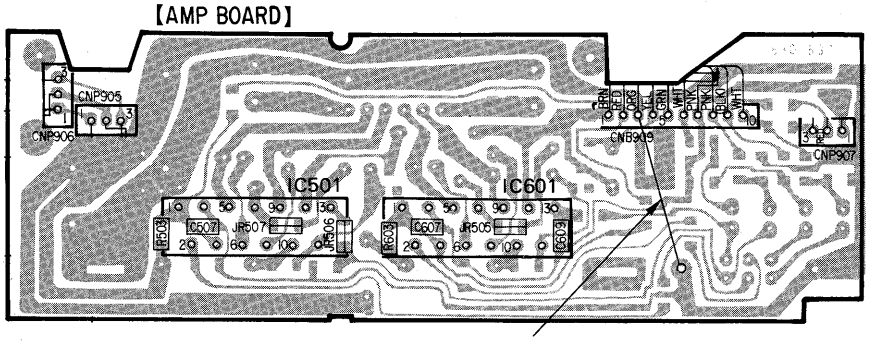


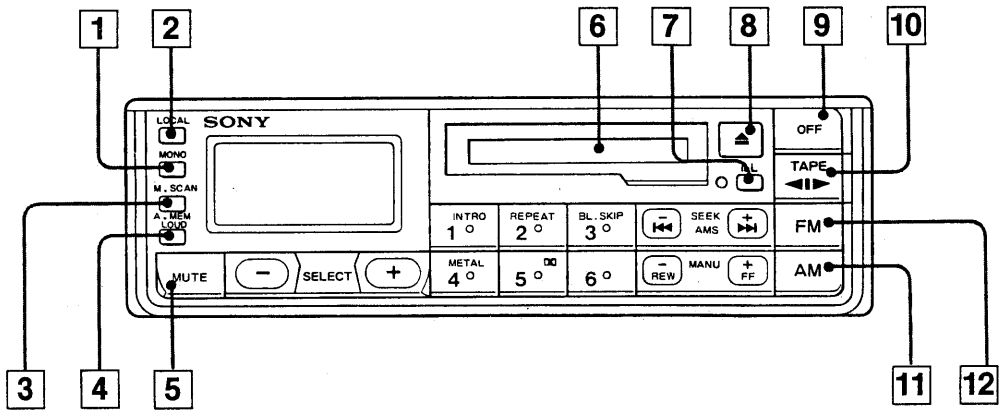
Fig. 1

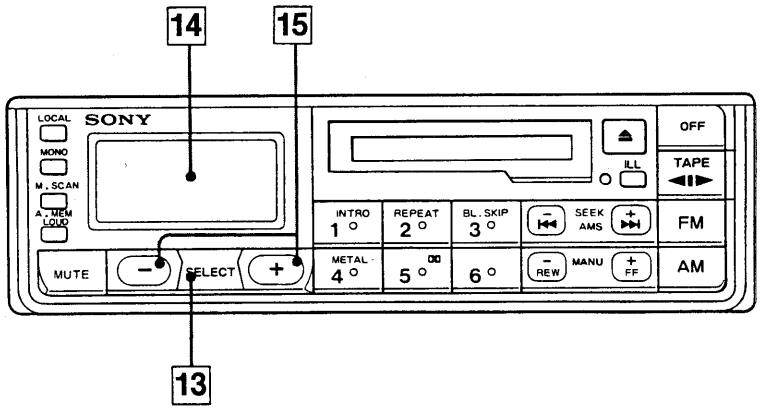


* After repairing, remove the lead wire.

Fig. 2

Location and Function of Controls





Refer to the page in ● for details.

1 **MONO (monaural)** ❽

2 **LOCAL select button** ❽

3 **M.SCAN (memory scan)/A.MEM (automatic memory) button** ❾

4 **LOUD (loudness) button**
Press to reinforce bass and treble especially when listening at low volume. To disengage the button, press it again.

5 **MUTE button**
Press to momentaly mute the sound. Press again to restore the same level as before.

6 **Cassette insertion door**

7 **ILL (illumination) select button**
Press to change the illumination color.

8 **⏏ (eject) button**

9 **OFF (power off) switch**
Press to turn off the unit.

10 **TAPE (playback/transport direction change) button** ❽

11 **AM select button** ❽

12 **FM select button** ❽

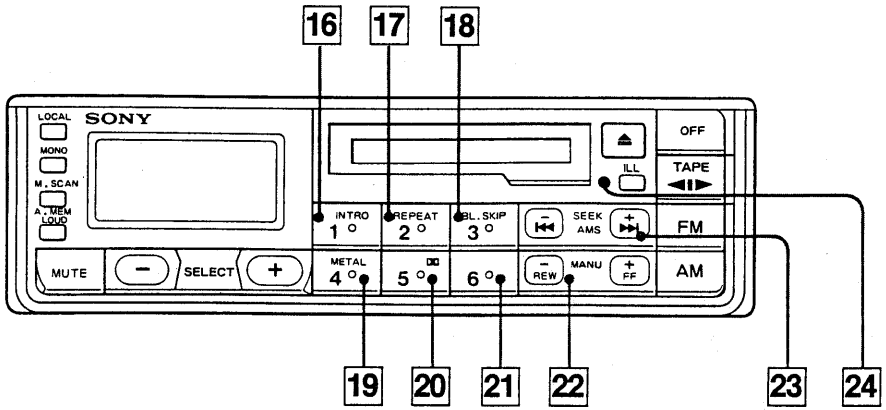
13 **SELECT (control mode select) button**
Press to select the desired mode, BAS (bass), TRE (treble), BAL (balance), FAD (fader), or VOL (volume).

14 **Display window**

15 **⊖⊕ (volume/tone/balance/fader control) button**
⊖⊕ button normally functions as the volume control. Adjust the level within three seconds after selecting the desired control mode. Otherwise, the mode goes back to the volume control mode.

Display window	Control mode	Press ⊖	Press ⊕
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speaker volume	To decrease the left-speaker volume
FAD	Fader control	To decrease the rear-speaker volume	To decrease the front-speaker volume
VOL	Volume control	For less volume	For more volume

Location and Function of Controls



	During tape playback	During radio reception
16	INTRO button ❽	Preset number buttons ❾
17	REPEAT button ❽	
18	BL. SKIP (blank skip) button ❽	
19	METAL button ❽	
20	◻◻ button ❽	
21	—	
22	FF/REW (fast forward/rewind) button ❽	MANU (manual tuning) button ❾
23	AMS* button ❽	SEEK (automatic tuning) button ❽

24 Reset button
Press this button when you use this unit for the first time and when you have changed the car battery, or when other buttons do not function.

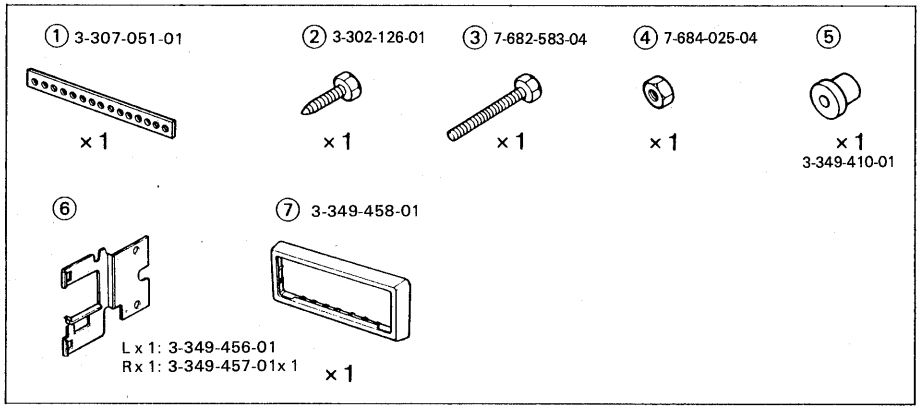
* Automatic Music Sensor

To mute the beep sound
Press 6° button while pressing SELECT. To obtain the beep sound again, press these buttons again.

Note
Intro play, repeat play will be cancelled when you press OFF button or when you keep the ignition key set to the off position for more than eight seconds. Blank skip funcion will be maintained until you press BL. SKIP button again.

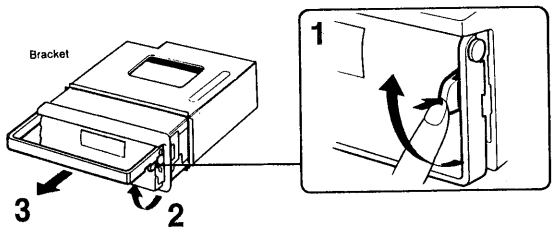
Supplied Mounting Hardware

The numbers in the list are keyed to those in the instructions.

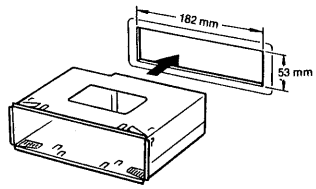


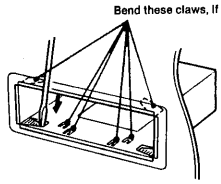
Installation

1 Remove the unit from the bracket.

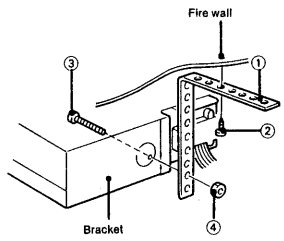


2 Install the bracket in the dashboard.

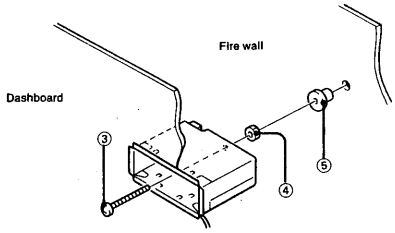




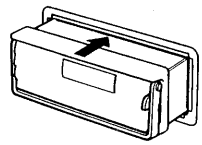
Example 1



Example 2

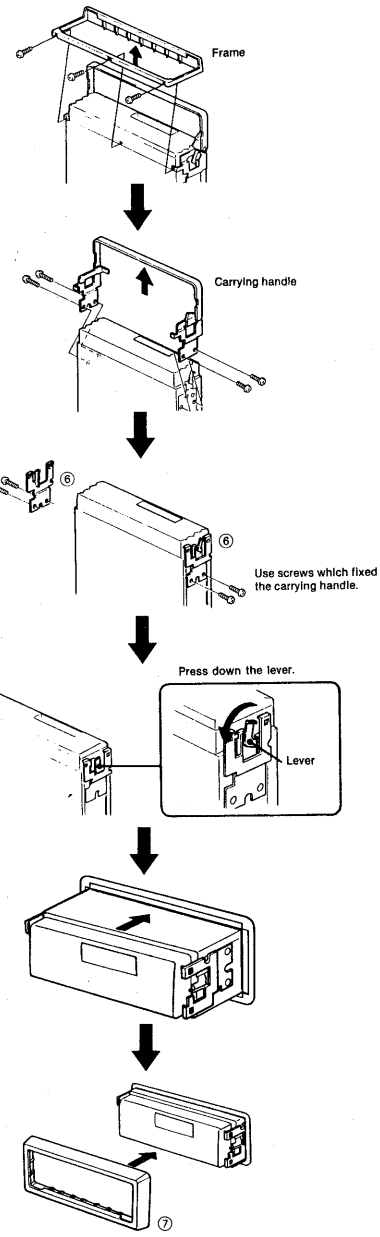


3A When installing the unit with the carrying handle



Push in the unit until it is locked firmly.

3B When installing the unit without the carrying handle

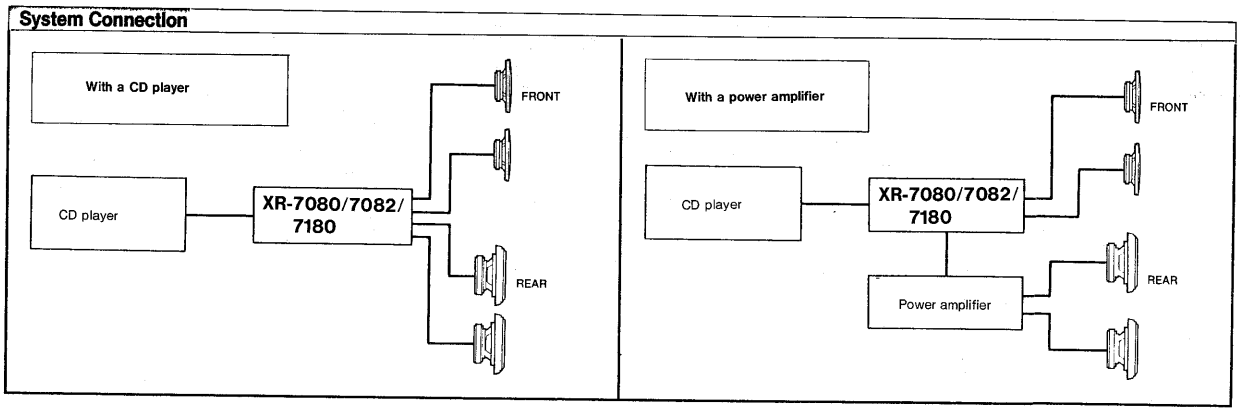


Connections

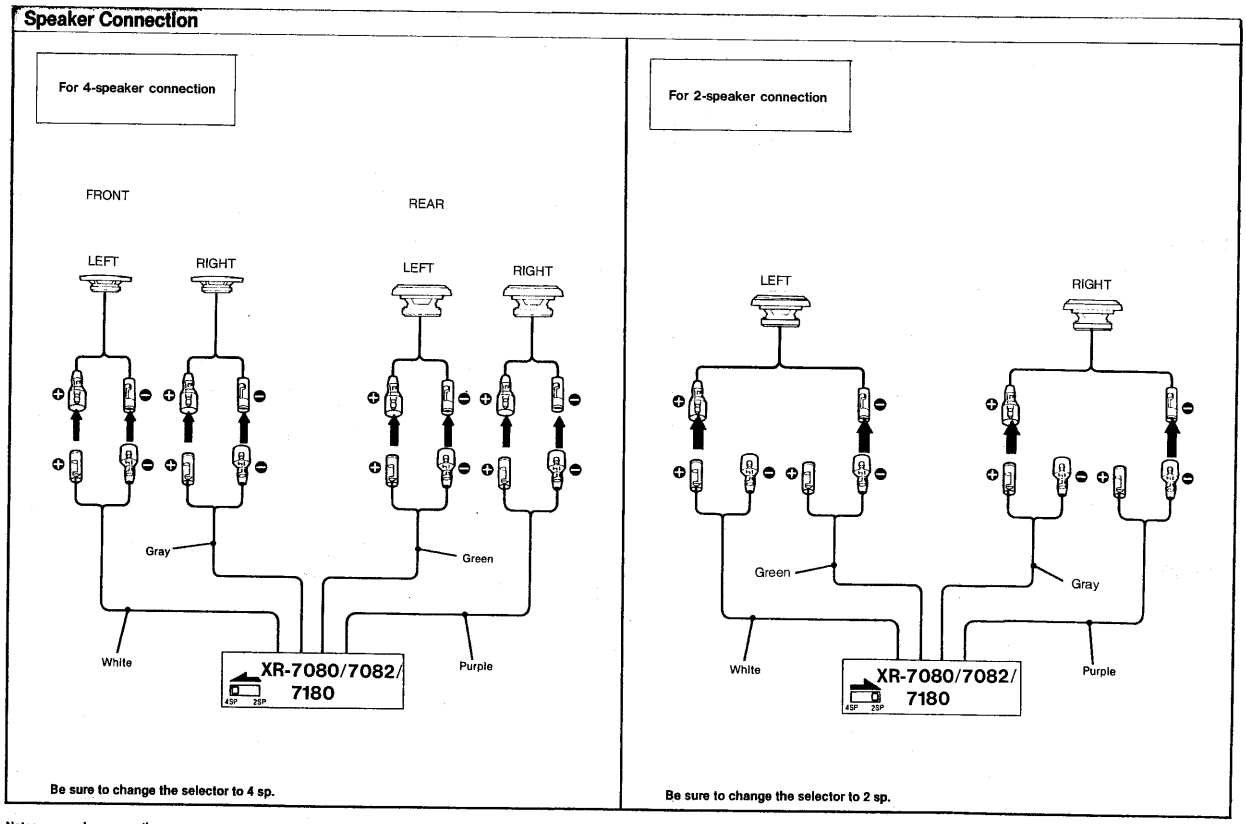
Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **red** power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal. It will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

System Connection



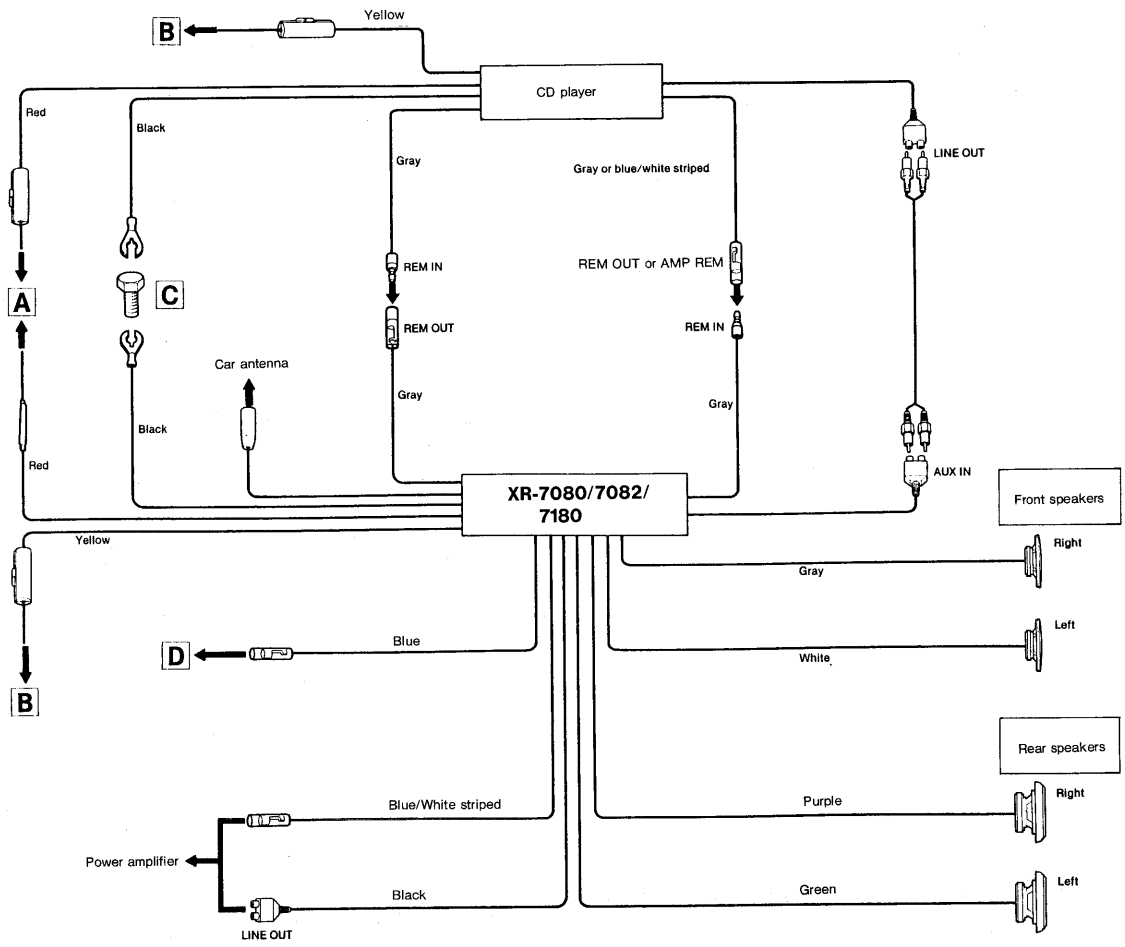
Speaker Connection



Notes on speaker connection

- Use speakers with an impedance of 3.2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

Connection Diagram



A to the +12 V power terminal which is energized in the accessory position of the ignition key

B to the +12 V power terminal which is energized at all times

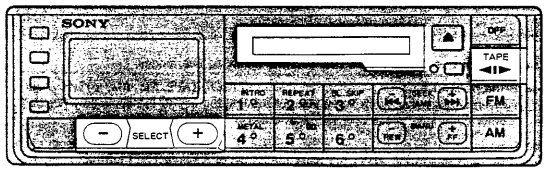
C to a metal part of the car

D to power antenna relay control box

Note: A power antenna without relay box cannot be used with this unit.
For details about the power antenna, refer to the power antenna instruction manual.

After completing the connections, press the reset button of this unit.

Tape Playback



1

or

TAPE

Insert a cassette to start playback.

Press TAPE button when a cassette is already inserted.

2 SELECT

Press to adjust the volume.

Other Operations

To rewind or fast-forward the tape	REW (rewind) / MANU / FF (fast-forward)	To stop the tape and listen to the radio	FM or AM
To listen to the other side of the cassette	TAPE	To play back the tape again	TAPE
To take out the cassette	⏏	To stop the tape and turn off the unit	OFF

Listening to the CrO_2 (TYPE II) or Metal (TYPE IV) Tapes

Press METAL 4

METAL appears on the display window.
To listen to the normal (TYPE I) tapes, press again.

Listening to Dolby NR-processed Tapes

Press 5

Press to activate B-type or C-type (XR-7180) Dolby NR system. Select the same Dolby NR system used for the recorded cassette. Dolby NR (Noise Reduction) system reduces tape hiss noise in low-level, high-frequency signals.

Locating the Beginning of a Desired Selection During Playback (AMS Function)

To locate the beginning of the selection being played	Press ⏮
To locate the next selection	Press ⏭

Listening to the First Portions of Selections in Order (Intro play)

Press INTRO 1

(during tape playback)

First ten seconds of each selection will be played back in order from the next selection. Press again to release this function.

Repeating the Selection Being Played (Repeat play)

Press REPEAT 2

The unit goes back to the beginning of the selection when the selection ends. Press again to release this function.

Skipping the Long Blank (Blank skip function)

Press BL. SKIP 3

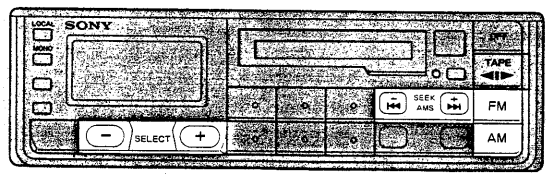
The unit skips the long blank (more than eight seconds) automatically and plays back the next selection. Press again to release this function.

Side of the cassette being played back

This unit plays back both sides of the cassette repeatedly. The indicator on the display window shows which side of the cassette is being played back.

Indicator	Side
►	The side facing upward
◄	The side facing downward

Automatic Tuning



1 FM or AM

Press to select the desired band, FM1, FM2, FM3 or AM.

The tuner turns on at the same time.

2 SEEK AMS

Press to start scanning.

⏮ For lower frequencies

⏭ For higher frequencies

The scanning automatically stops when a station is tuned in.

Repeat this step until the desired station is tuned in.

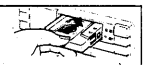
3 SELECT

Press to adjust the volume.

FM has three bands (FM1, FM2, FM3). Three bands cover the same frequency range. To change the band, press FM button.

Other Operations

To stop the radio and start tape playback

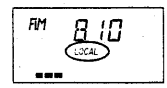
When no cassette is inserted	
When a cassette is already inserted	TAPE

To stop the radio and turn off the unit — OFF

When there are too many stations and the scanning stops too frequently during automatic tuning

Press LOCAL

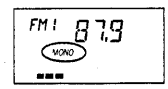
Only the stations with relatively strong signals can be tuned in.



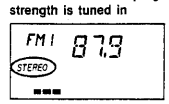
When the FM stereo program is too weak and noisy

Press MONO

The noise will be reduced. The sound will be monaural instead.

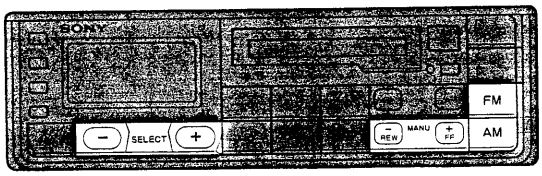


When an FM stereo program of sufficient signal strength is tuned in



The program is automatically received in stereo.

Manual Tuning



1 FM or AM

Press to select the desired band, FM1, FM2, FM3 or AM.

The tuner turns on at the same time.

2 REW MANU FF

Press to select the desired station.

REW For lower frequencies

FF For higher frequencies

To change the frequency rapidly.
Keep the button pressed.

3 SELECT

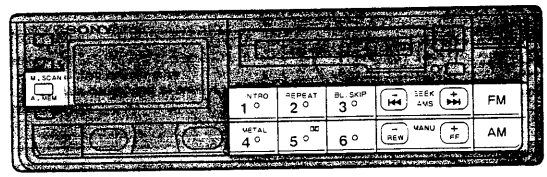
Press to adjust the volume.

Warning
While driving, keep your eyes on the road and use the automatic tuning or the memory preset tuning!

Memory Preset Tuning

You can memorize a total of 24 stations (6 stations for each band), one on each preset number.

Memorizing the Stations Automatically (Automatic Memory Function)



1 FM or AM

Press to select the desired band, FM1, FM2, FM3 or AM.

The tuner turns on at same time.

2 M. SCAN / A. MEM

Press for more than two seconds.

The unit starts scanning the selected band and memorizes the tuned stations on the preset number button 1 through 6 automatically in the order of the frequency.

Surveying What is Being Broadcast on the Preset Stations

Press M. SCAN / A. MEM lightly

Each memorized station will be scanned for five seconds in order. (When the broadcast of the memorized station is too weak, it cannot be received.)

In what way are stations scanned?
The unit scans the band twice from the lowest frequency to the highest one. At first cycle, the unit scans only the stations with considerably strong signals. At the next cycle, the unit scans all the stations that can be received, including weak ones.

Memory Preset Tuning

Memorizing Only the Desired Stations Manually

Example: To memorize on the preset number 1

1 FM or AM

Press to select the desired band.

The tuner turns on at same time.

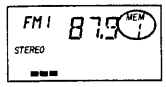
2 SEEK AMS or MANU REW FF

Press to tune in the desired station.

3 INTRO 1

Press for more than two seconds.

The number of the pressed preset number button will be displayed. MEM indicator appears to show that the station has been memorized. (MEM indicator will disappear in a few seconds.)



Repeat these steps for each preset button.

To Receive the Preset Station

1 FM or AM

Press to select the desired band.

The tuner turns on at the same time.

2 INTRO 1 ~ 6

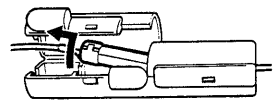
Press lightly to receive the desired station.

Important
Every preset number button has only one memory for a band. The previously memorized station will be erased when you enter a new station of the same band on the same preset number button.

Maintenance

Fuse Replacement

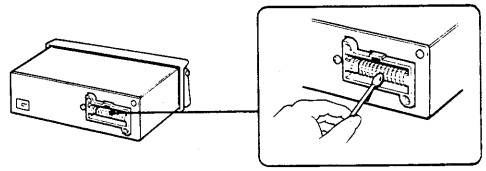
If the fuse blows, check the power connection and reipace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.



Warning
Use the specified ampere fuse.
Use of a higher amperage fuse may cause serious damage.

Cleaning the Connector

To keep the best possible sound quality, clean the metallic part of the connector at the rear of the unit periodically using a commercially available head cleaning fluid or rubbing alcohol and a cotton swab.



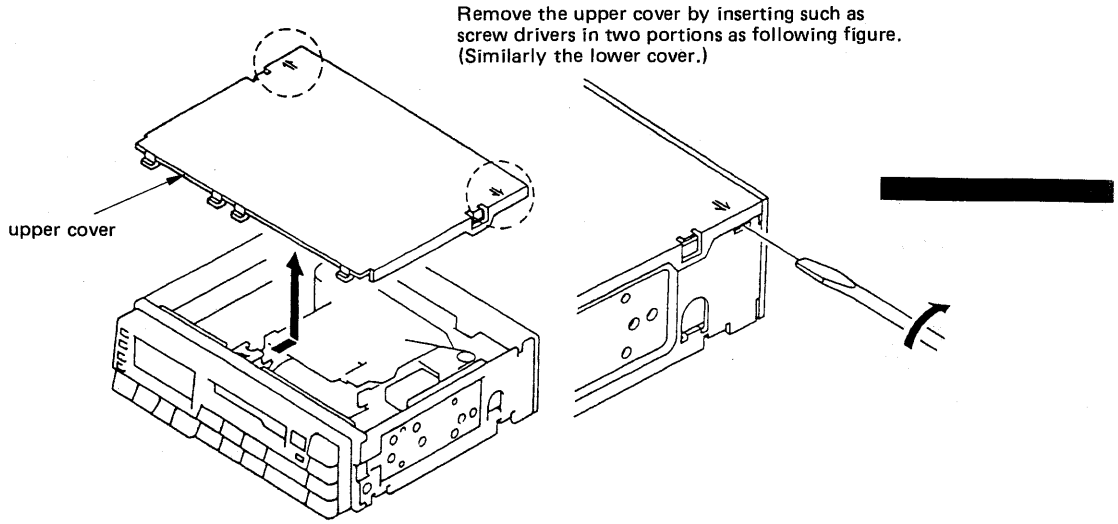
Cleaning the Head and the Tape Path

Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs in playback. Clean the tape head and the tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

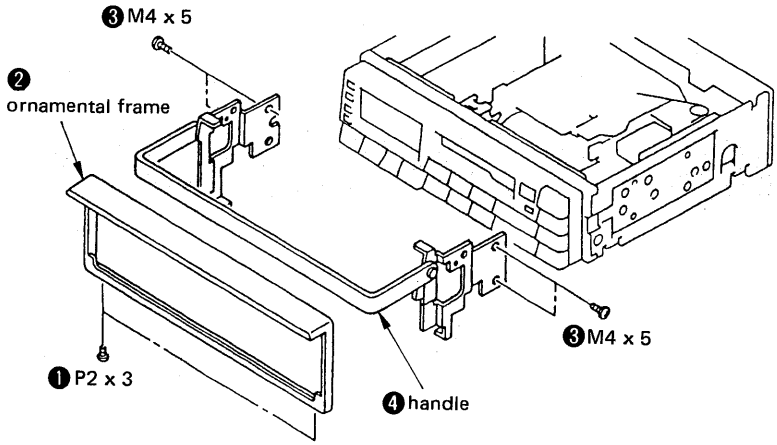
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

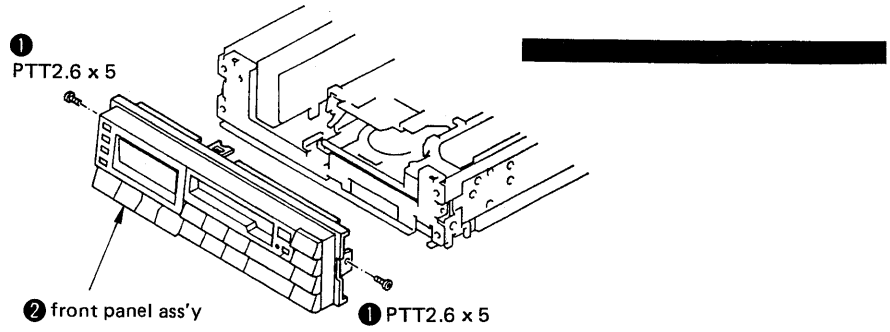
UPPER COVER


Remove the upper cover by inserting such as screw drivers in two portions as following figure. (Similarly the lower cover.)
upper cover

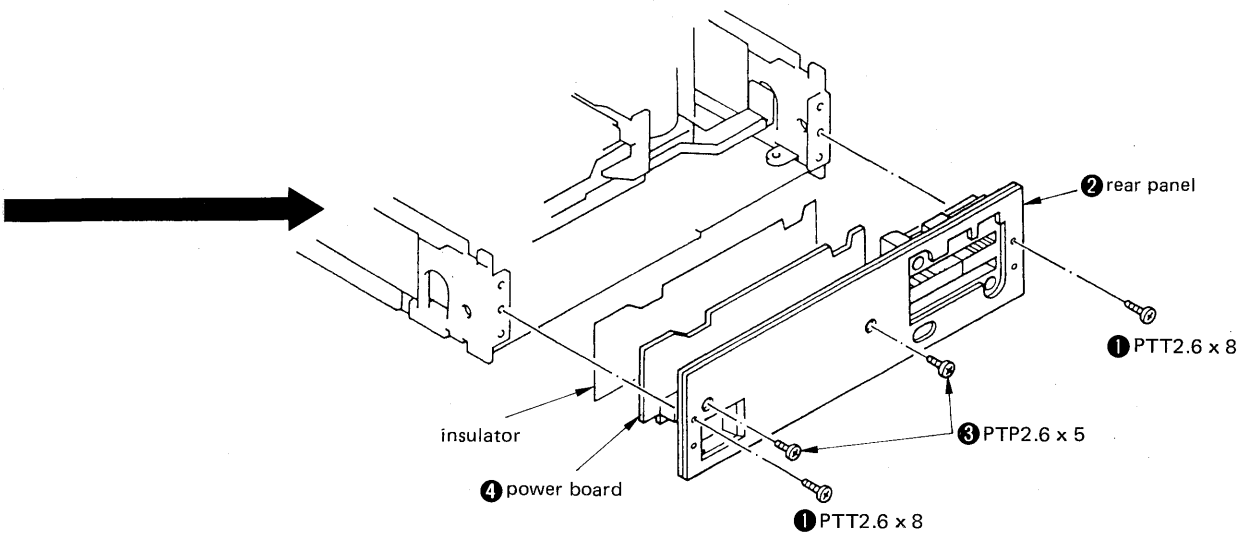
HANDLE



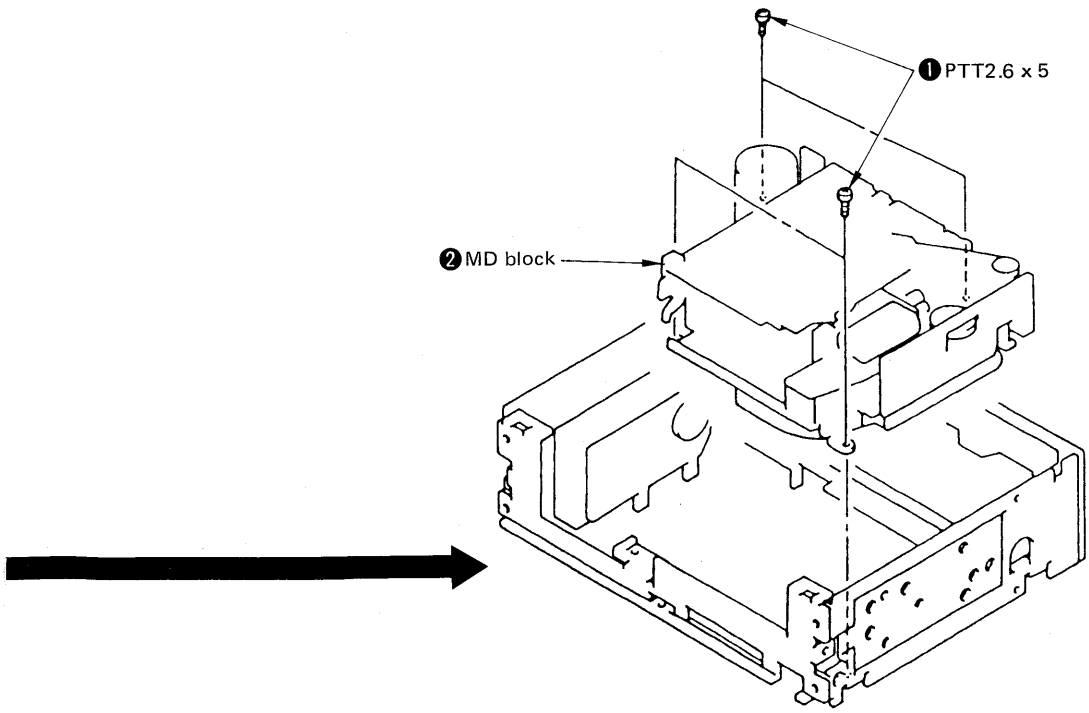
FRONT PANEL ASSEMBLY



POWER BOARD



MD BLOCK



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

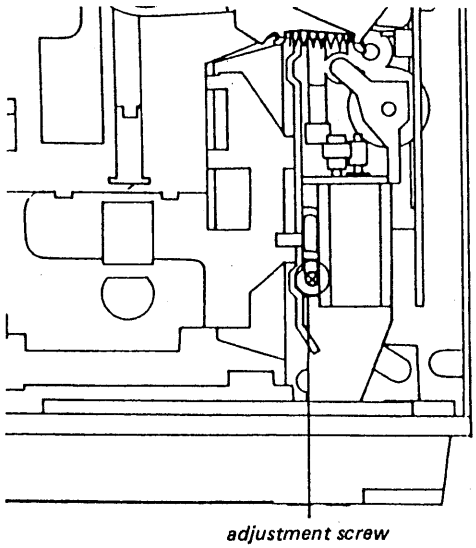
1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head — Pinch roller
   Idler — Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

Torque Measurement

Measure the torque at a supply voltage of 14.4 V DC.

	Torque meter	Meter reading
FWD	CQ-102C	25 to 55 g·cm (0.35 to 0.77 oz·inch)
FF, REW	CQ-210B	55 to 150 g·cm (0.77 to 2.1 oz·inch)
Back tension	CQ-102C	1.5 to 4 g·cm or less (0.02 to 0.05 oz·inch or less)

Adjustment Location:

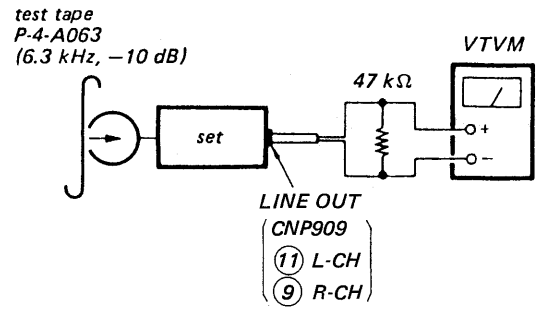


3-2. ELECTRICAL ADJUSTMENTS DECK SECTION

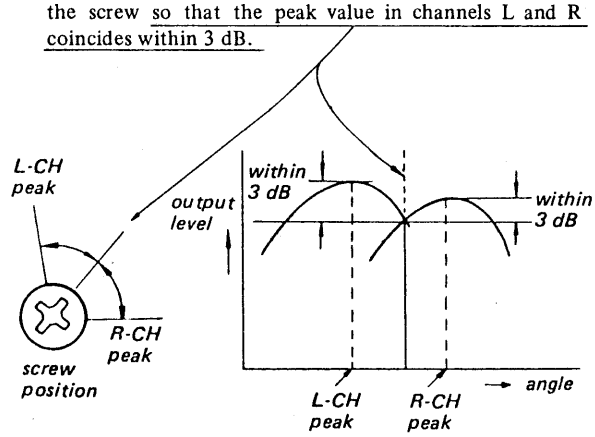
PB Head Vertical Adjustment

Proceudre:

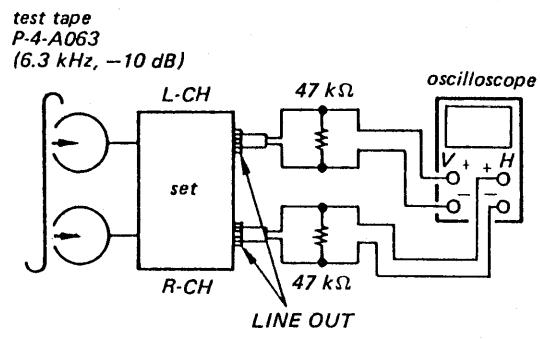
1. Put the set into the FWD PB mode.

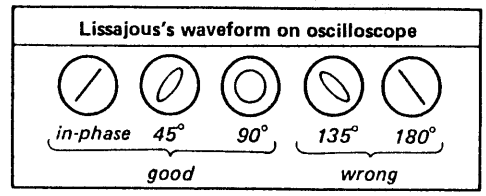


2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 3 dB.



3. Check the phase in the PB mode.



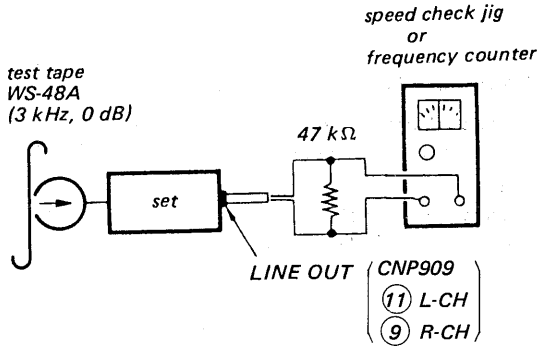


4. Repeat the above adjustment for the PB REV mode.

Capstan Motor Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.

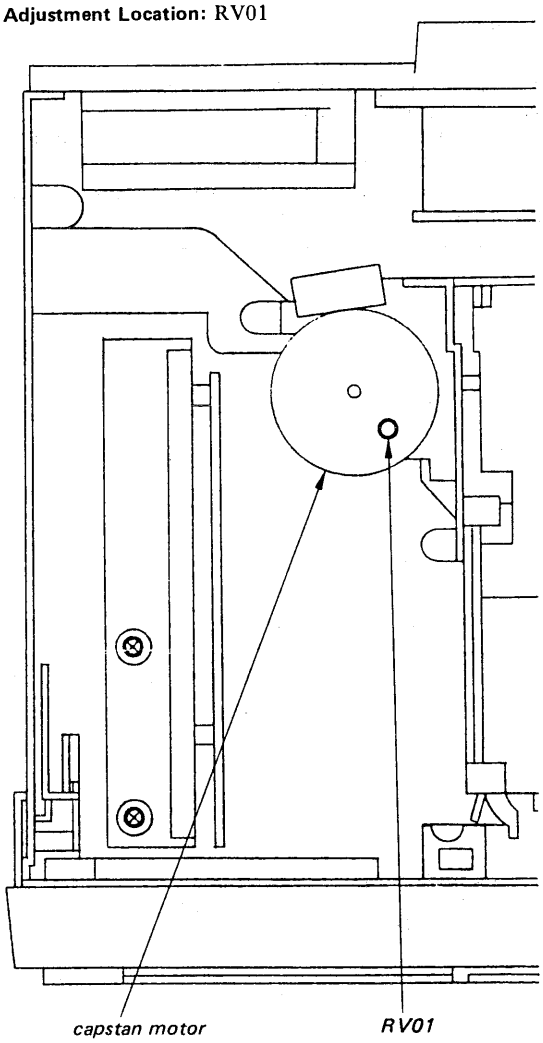


Specification: Constant speed

Speed check jig	Frequency counter
−1.5 to +2.5%	2,955 to 3,075 Hz

Adjust so that the frequency difference between the FWD and REV modes is within 1.5% (45 dB).

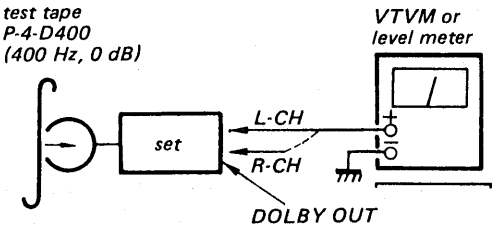
Adjustment Location: RV01



DOLBY NR Level Adjustment

Setting:

DOLBY NR switch: OFF
METAL switch: OFF



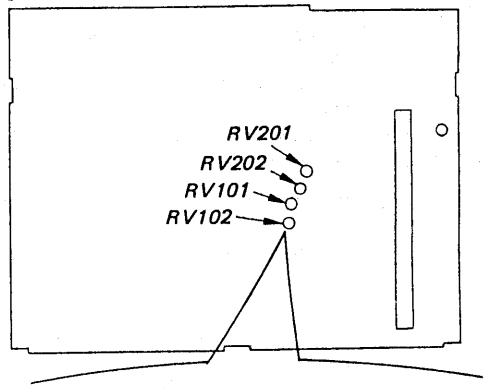
Procedure:

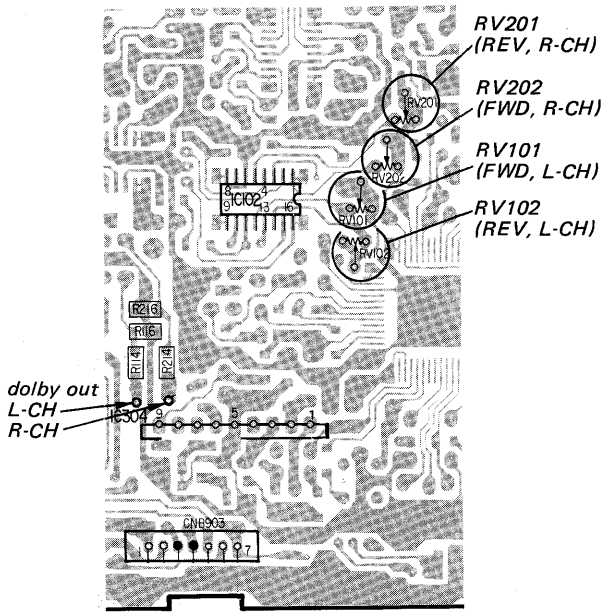
1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) and RV202 (R-CH) so that VTVM reading is −4 ±0.3 dB.
3. Put the set into the REV PB mode.
4. Adjust RV102 (L-CH) and RV201 (R-CH) so that VTVM reading is −4 ±0.3 dB.
   (−4 ±0.3 dB: approx. 0.51 to 0.47 V)

Note: Item 3 and 4 REV adjustment is for XR-7180 only.

Adjustment Location: dolby board

[MAIN BOARD] (Conductor Side)





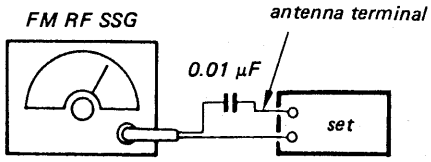
TUNER SECTION

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Auto Scan/Stop Level Adjustment

Setting:

Band switch: FM
MONO switch: ON
Frequency: 98.0 MHz (AEP, West Germany model)
98.1 MHz (US, Canadian model)



Carrier frequency: *98.0 MHz (AEP, West Germany model) 98.1 MHz (US, Canadian model)*
Output level: *60 dB (1 mV) 28 dB (25 V)*
Mode: *mono, unmodulated*

Procedure:

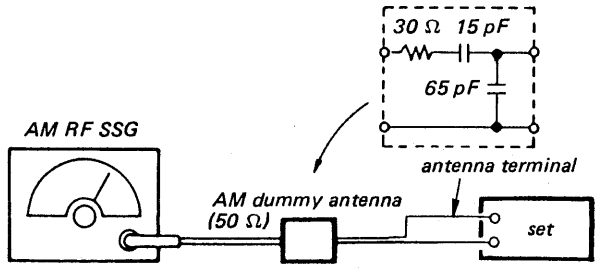
1. Tune in 98.0 MHz (AEP, West Germany model) or 98.1 MHz (US, Canadian model).
2. Adjust RV02 so that the VOM reading changes from low to high (5 V reference voltage).
3. When the FM RF SSG's output level is 28 ±4 dB check that the auto scan is stopped.

AM Auto Scan/Stop Level Adjustment

Note: This adjustment should be made after FM auto scan stop level adjustment is completed.

Setting:

Band switch: AM
Frequency: 999 kHz (AEP, West Germany model)
1,000 kHz (US, Canadian model)

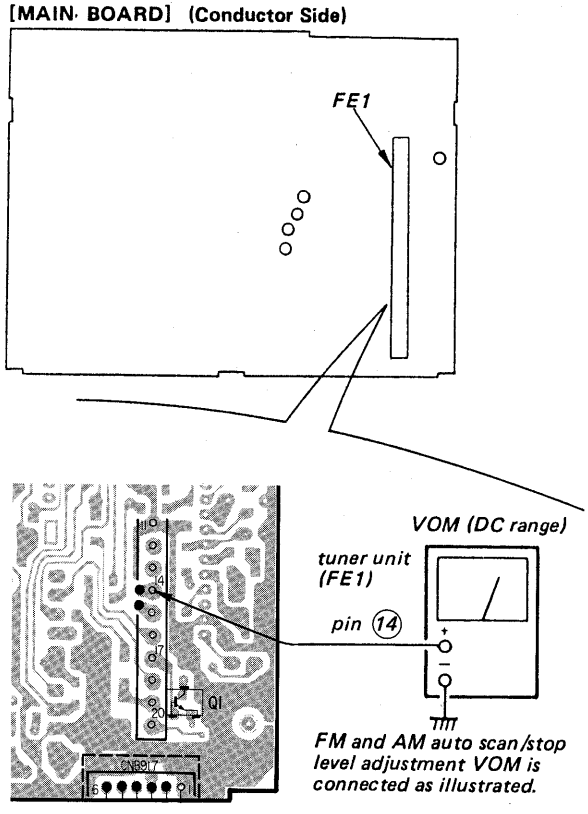


999 kHz, 60 dB (1 mV),
33 dB (44.7 µV)
no modulation

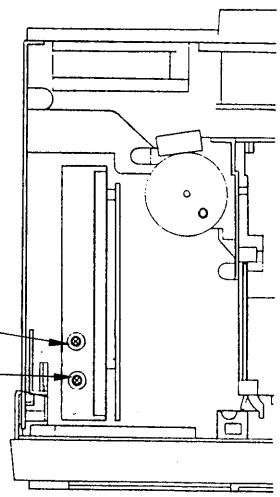
Proceudre:

1. Tune in 999 kHz (AEP, West Germany model) or 1,000 kHz (US, Canadian model).
2. Adjust RV03 so that the VOM reading changes from low to high (5.6 V reference voltage).
3. When the AM RF SG's output level is 35 ±5 dB, check that the auto scan is stopped.

[MAIN BOARD] (Conductor Side)



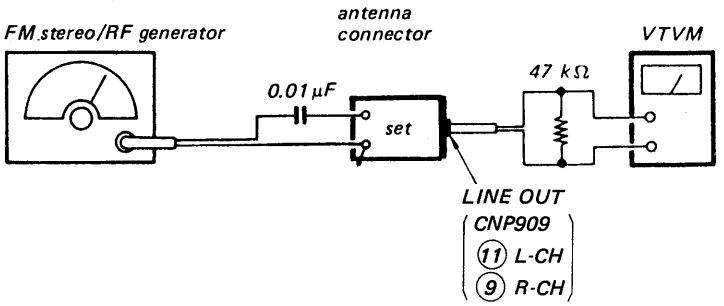
FM and AM auto scan/stop level adjustment VOM is connected as illustrated.



FM Stereo Separation Adjustment

Setting:

Band switch: FM
Frequency: 97.9 MHz



Carrier frequency: *97.9 MHz*
Output level: *60 dB (1 mV)*
Modulation: *main; 1 kHz 33.75 kHz deviation*
sub; 1 kHz, 33.75 kHz deviation
19 kHz pilot; 7.5 kHz deviation

Procedure:

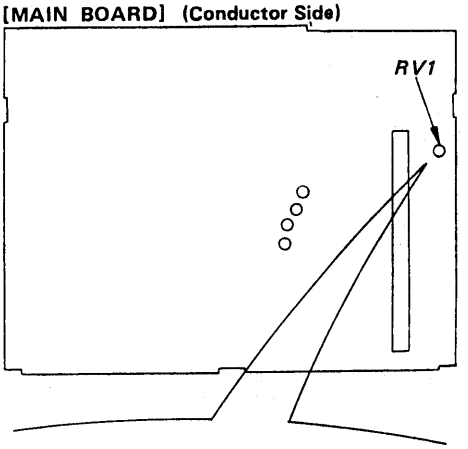
1. Adjust RV1 for a best stereo separation at a LINE OUT level of approximately 0 dB.
   More than 35 dB is good.

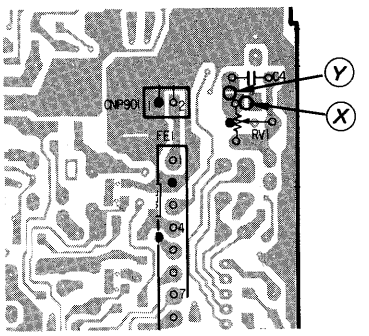
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV1 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV1 for minimum reading.

   L-CH Stereo separation: (A) – (B)
   R-CH Stereo separation: (C) – (D)
   The separations of both channels shoul be equal.
2. If the result is not enough, make a solder bridge at (X) position and step back to proceduer 1.
3. If the result is still not good even with the bridge (X), make one at (Y) position in place of (X) and step to procedure 1. again.

Adjustment Location:

[MAIN BOARD] (Conductor Side)

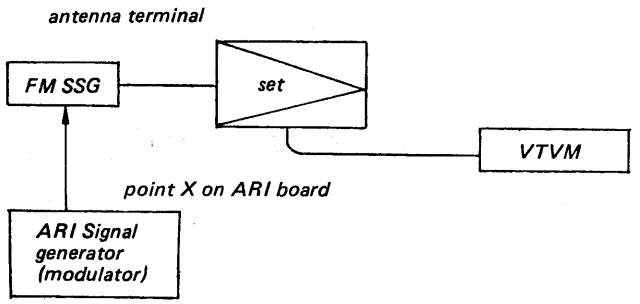




ARI Level Adjustment

Setting:

Band switch: FM



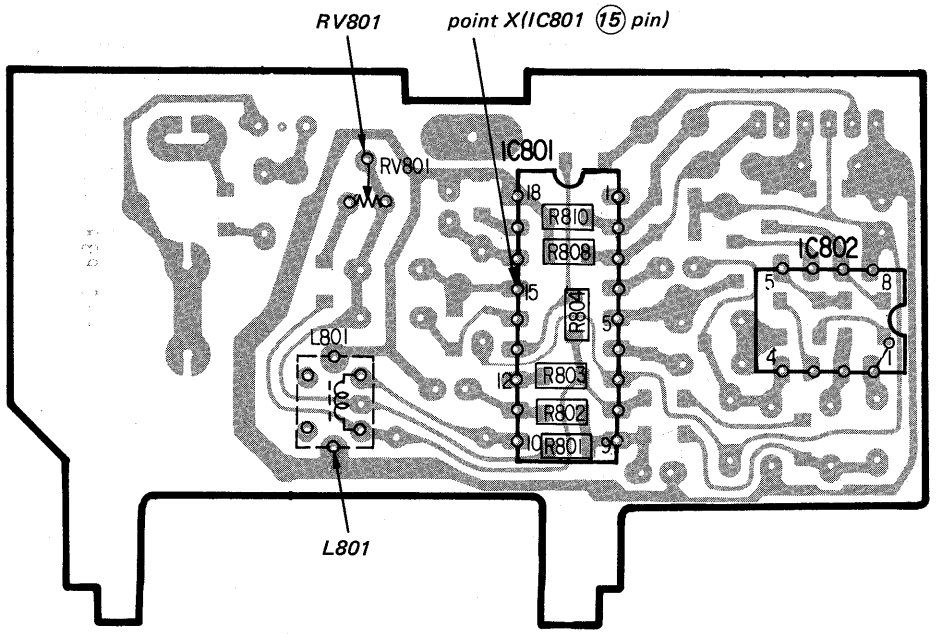
Frequency: Initial frequency
Modulation: ARI carrier only
Output level: 4 mVrms (composit)

Procedure:

1. Adjust L801 so that the level of 125 Hz signal becomes maximum.
2. Adjust RV801 in the same way.

Specification: 1 Vrms or more

Adjustment Location: ARI board conductor side view



SECTION 4
DIAGRAMS

4-1. IC301 (μPD75108G-E61) DESCRIPTION

The μPD75108G-E61 functions are described below.

- Description

Pin No.	Name	I/O	Description
1	CLOCK	O	Clock output for data transfer related to display (LCD), PLL, and electronic volume control. CMOS output, active high.
2	DATA	O	Data on the display (LCD), PLL, and electronic volume control are output from this terminal. CMOS output, active high.
3	PLL	O	Output terminal for PLL data selection. When this terminal is high, the data is used for PLL setting. The data is set to PLL at the trailing edge (⌐‾_). CMOS output, active high.
4	VOL	O	Output terminal for electronic volume control data selection. When this terminal is high, the data is used for electronic volume control setting. The data is set to the electronic volume control at the trailing edge (⌐‾_). CMOS output, active high.
5	RADIO	O	Output terminal for controlling the power source of the tuner block. The RADIO output goes high during tuner mode and when SDK is on. CMOS output, active high.
6	LW	O	Output terminal for LW/MW switching. The LW output goes high when the LW band is selected, and remains low when any other bands are selected. CMOS output, active high.
7	$\overline{\text{RESET}}$	—	The microcomputer hardware is reset by this terminal. It should be pulled up (by VCC) at all times including backup (using lithium battery). The microcomputer hardware is reset when this terminal is set from low to high. It reset is executed during backup operation, operation is not normal. Reset should be executed with the backup line connected. (The reset button on the panel will not work unless the backup line is connected.)
8	×2	—	×2 and ×1 are connected to the osillator to provide the clock for this microcomputer. The oscillation is realized by cellalock of 4.19 MHz which is operated whis an instruction cycle of 0.97 usec. Oscillation is maintained during battery backup.
9	×1	—	
10	MONO/ST	I/O	Forced monaural output terminal and stereo input terminal. The terminal functions as the STEREO input terminal when MONO is off (AUTO stereo mode). When the terminal is made low, the stereo pilot lamp goes on. The terminal functions as the MONO output terminal when MONO is on (forced monaural) and the output is made low. Note : The STK3400 is set to forced monaural if no current is fed to the stereo indicator terminal. Current is fed by the microcomputer to set MONO. CMOS output or CMOS input, low active.
11	ACC IN	I	Input terminal for ACC voltage detection. The terminal is used to determine whether the ACC is on or off. When this input is made low, the ACC off processing is executed (tape stop mute output).
12	EQ IN	I	A connected graphic equalizer is detected by the EQ IN terminal. When this terminal is made high, the fader control is centered and fader control selection by the select key is disabled. (not used : fixed 0)

<table>
<tr><th>Pin No.</th><th>Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>13</td><td>METAL</td><td>O</td><td>Metal output and AUTO metal input terminal.
After reset is complete, Metal display is turned on if this input is high in input mode. Metal is not displayed if this input is low.
When the Metal button is pressed, metal output is set in, high signal is output from this terminal, and Metal is displayed.
The mode is reset to Input mode when the Metal button is pressed again.</td></tr>
<tr><td>14

MS3

(not used : fixed 1)</td><td></td><td>—</td><td rowspan="4">Pins ⑭ to ⑰ are input terminals for directional mode setting.
<table><tr><th></th><th>MS0</th><th>MS1</th><th>MS2</th><th>FM</th><th>AM (MW)</th><th>LW</th><th>Others</th></tr><tr><td>XR-7180</td><td>0</td><td>0</td><td>1</td><td>87.9 to 107.9MHz (200kHz)</td><td>530 to 1,710kHz (10kHz)</td><td></td><td></td></tr><tr><td>XR-7080</td><td>0</td><td>1</td><td>0</td><td>87.5 to 108MHz (50kHz)</td><td>531 to 1602kHz (9kHz)</td><td></td><td></td></tr><tr><td>XR-7082</td><td>0</td><td>1</td><td>1</td><td></td><td></td><td></td><td>SDK mode *1</td></tr><tr><td>TEST</td><td>1</td><td>1</td><td>1</td><td>76.0 TO 90.0MHz (100kHz)</td><td>522 to 1629kHz (9kHz)</td><td></td><td>Test mode *2</td></tr></table>
Notes :
*1 When the SDK mode is selected, the button functions are modified as follows :
XR-7180 XR-7082
AM SDK
FM FM/AM
MONO SENS
LOCAL DSPL
*2 During the test mode, tape end is not detected.</td></tr>
<tr><td>15

MS2</td><td></td><td>—</td></tr>
<tr><td>16

MS1</td><td></td><td>—</td></tr>
<tr><td>17

MS0</td><td></td><td>—</td></tr>
<tr><td>18

LM1</td><td></td><td>O</td><td rowspan="2">Loading motor control output port.
<table><tr><td>Motor rotation</td><td>LM0</td><td>LM1</td></tr><tr><td>Loading direction</td><td>High</td><td>Low</td></tr><tr><td>Eject direction</td><td>Low</td><td>High</td></tr><tr><td>FF and REW (including AMS) mode</td><td>High (Brake)</td><td>High (Brake)</td></tr></table></td></tr>
<tr><td>19

LM0</td><td></td><td>O</td></tr>
<tr><td>20

CPM</td><td></td><td>O</td><td>Output terminal for capstan motor control.
The signal is kept high during PLAY, FF, and REW (including AMS) modes.</td></tr>
<tr><td>21

DPL</td><td></td><td>O</td><td>Output terminal for plunger control.
The signal is kept high during PLAY, FF, and REW (including AMS) modes.
The signal output is kept off for about 60 msec during direction mode.</td></tr>
</table>

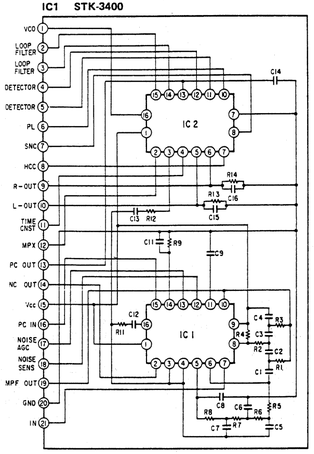
<table>
<tr><th>Pin No.</th><th>Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>22
23
24
25</td><td>PS1
PS2
PS3
PS4</td><td>I
I
I
I</td><td>Input terminals for detection of the MD (CMX-55) position.
<table>
<tr><td></td><td colspan="8">MD position</td></tr>
<tr><td>Switch port</td><td>EJECT</td><td>STOP</td><td></td><td>FF*</td><td></td><td>REW*</td><td></td><td>PLAY</td></tr>
<tr><td>PS1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>PS2</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td></tr>
<tr><td>PS3</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td></tr>
<tr><td>PS4</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td></tr>
</table>
Note : The FF position and REW position are interchanged when the direction is reversed (FF to REW and REW to FF). The STOP mode indicates the status immediately after "0011" is changed to "0111", because switch mode during EJECT (set from STOP) is identical to the STOP status.</td></tr>
<tr><td>26</td><td>VSS</td><td>—</td><td>Microcomputer power source (GND) terminal.</td></tr>
<tr><td>27</td><td>BACK UP</td><td>I</td><td>Input terminal for back up current detection.
When this terminal is made low, the microcomputer clock is terminated (stop mode) and memory is backed up at low voltage.
When the terminal is set from low to high at the leading edge, the clock is started (operation is enabled).</td></tr>
<tr><td>28</td><td>OFF IN</td><td>I</td><td>Terminal for Handle Up detection.
When this input is high, operation identical to power off is executed.
When this input is made low, the previous status is reset.</td></tr>
<tr><td>29</td><td>AMS</td><td>I</td><td>This input is used to detect tuning during tape playback and AMS.
No curve is contained if this terminal is high, and the terminal is made low if curve is detected.</td></tr>
<tr><td>30</td><td>N/R</td><td>I</td><td>Input terminal to detect tape running direction.
High : Normal direction
Low : Reversed direction
During tape playback, the MD is controlled to match this input with the microcomputer internal status.</td></tr>
<tr><td>31
32</td><td>END1
END2</td><td>I
I</td><td>END1 and END2 are used to detect reel table rotation for tape end detection and tuning detect timing during AMS mode. Both leading and trailing edges (⌐ and ¬) are counted (16 counts for one reel table rotation).
END1 (REEL1) ··· Normal direction take up reel table
END2 (REEL2) ··· Reverse direction take up reel table</td></tr>
<tr><td>33</td><td>SK
(Signal identifying the traffic information broadcasting station)</td><td>I</td><td>SK input terminal in SDK directional mode.
High : SK present (SK is indicated.)
Low : SK absent (No indication.)
If this terminal is held low for more than 8 seconds while the SDK switch is on, SEEK is executed automatically from local mode.(This applies to FM band.)
When SDK is on, only the stations with this terminal in high mode are terminated (automatic station selecting).</td></tr>
<tr><td>34</td><td>SDL</td><td>I</td><td>This input is used to detect the level of Seek, Memory scan, and AUTO memory during tuner automatic station selection.
When this terminal is made high, "station preset" is assumed and the SDS is output to start the IF counter of the PLL IC.
This terminal is also checked during SDC check (PLL IC IF counter matched output). If it is high, the station selection operation is terminated.
(AUTO memory is switched to Memory and Memory scan is held temporarily.)</td></tr>
</table>

<table>
<tr><th>Pin No.</th><th>Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>35</td><td>DK
(Traffic information broadcasting signal)</td><td>I</td><td>If this input is made high while SDK is on, "traffic information start is assumed. Tape mode (AUX) is switched to tuner (FM) mode and the volume level is raised to the level specified in memory. The SDK indication continues blinking during this operation. The system is reset to the previous mode when this input is made low or SDK is turned off.</td></tr>
<tr><td>36</td><td>BK
(Area identification signal)</td><td>I</td><td>Signals between 23 Hz and 54 Hz are counted and the area code is indicated (while SDK is on) as follows :
A 23.75 Hz
B 28.27 Hz
C 34.93 Hz
D 39.58 Hz
E 45.67 Hz
F 53.98 Hz</td></tr>
<tr><td>37</td><td>DK OUT</td><td>O</td><td>This output is usually kept high but is made low when the traffic information receive mode is set by the DK input.
CMOS output.</td></tr>
<tr><td>38</td><td>ACC SW</td><td>O</td><td><table><tr><th></th><th>XR-7180</th><th>XR-7080/7082</th></tr><tr><td>reset</td><td>Linked with ACC</td><td>Linked with POWER</td></tr><tr><td>[1]+reset</td><td>Linked with POWER</td><td>Linked with ACC</td></tr></table>High : FUNCTION LED lights up
Low : FUNCTION LED lights out</td></tr>
<tr><td>39</td><td>ILM1</td><td>O</td><td>With ILL button
Low Green
High AMBER</td></tr>
<tr><td>40</td><td>BEEP</td><td>O</td><td>Output terminal to control the button operation confimation sound.
The multivibrator is controlled by this output to generate key tone pulse of about 60 mesc.
This output is disabled by pressing button No. 6 while pressing the SELECT button.</td></tr>
<tr><td>41</td><td>K3</td><td>I</td><td rowspan="4">Key input terminal.
Usually pulled up at 5 V. Key input is assumed when the signals are made low by the KS port.</td></tr>
<tr><td>42</td><td>K2</td><td>I</td></tr>
<tr><td>43</td><td>K1</td><td>I</td></tr>
<tr><td>44</td><td>K0</td><td>I</td></tr>
<tr><td>45</td><td>KS5</td><td>O</td><td rowspan="6">Key scan output terminals of N channel open drain type (active low).</td></tr>
<tr><td>46</td><td>KS4</td><td>O</td></tr>
<tr><td>47</td><td>KS3</td><td>O</td></tr>
<tr><td>48</td><td>KS2</td><td>O</td></tr>
<tr><td>49</td><td>KS1</td><td>O</td></tr>
<tr><td>50</td><td>KS0</td><td>O</td></tr>
<tr><td>51</td><td>B/$\overline{C}$</td><td>I/O</td><td>DOLBY mode setting terminal on initial reset.
When High → DOLBY B/C
When Low → DOLBY B only</td></tr>
<tr><td>52</td><td>$\overline{DOLBY}$</td><td>O</td><td>Dolby on/off selector output terminal.
Low when Dolby is on (B & C).
High when Dolby is off.
The output can be pulled up at 5 V or above (up to 10 V) because it on N channel open drain type (active low).</td></tr>
</table>

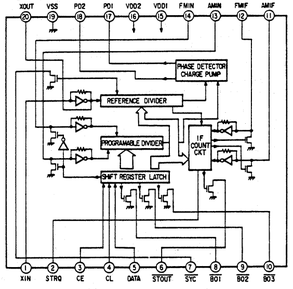
<table>
<tr><th>Pin No.</th><th>Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>53</td><td>S2</td><td>O</td><td rowspan="2">Signal selector output terminal.
Signals are selected as follows :
<table><tr><td colspan="2"></td><td>S1</td><td>S2</td></tr><tr><td rowspan="2">Tape</td><td>NOR</td><td>Low</td><td>Low</td></tr><tr><td>REV</td><td>* High</td><td>Low</td></tr><tr><td colspan="2">Tuner</td><td>Low</td><td>High</td></tr><tr><td colspan="2">AUX</td><td>High</td><td>High</td></tr></table>* XR-7080/7082 : Low
The output can be pulled up at 5 V or above (up to 10 V) because it is on N channel open drain type (active low).</td></tr>
<tr><td>54</td><td>S1</td><td>O</td></tr>
<tr><td>55</td><td>FM/AM</td><td>O</td><td>Output terminal for FM/AM power sourece selection during Tuner mode.
Low ; FM
High ; AM
The current for the N channel open drain output is fed from the base of the transistor for power swicthing.</td></tr>
<tr><td>56</td><td>MUTE</td><td>O</td><td>Mute output terminal. The output is made high to apply muting during mode selection and AMS.
The signal is usually kept low and made high (high impedance) during nonoperating modes (N channel open drain type).</td></tr>
<tr><td>57</td><td>NC
(VPP)</td><td>—</td><td>Functions as VPP during one-time microcomputer mode and not connected (reserved) during mask mode.
For safety, NC is connected to the power source (VDD).</td></tr>
<tr><td>58</td><td>VDD</td><td>—</td><td>The microcomputer power source terminal, operating at 5 V ±0.5 V.</td></tr>
<tr><td>59</td><td>POWER</td><td>O</td><td>Power source control output terminal.
High level signal is output when power is turned on.
CMOS output.</td></tr>
<tr><td>60</td><td>OUT RUN</td><td>O</td><td>This output is used to stop the unit connected to the output terminal AUX for OUT RUN.
AUX High
Otherwise Low
CMOS output.</td></tr>
<tr><td>61</td><td>AUX IN</td><td>I</td><td>AUX mode input terminal.
When this input is made high, AUX input present is assumed and the system is set to AUX mode.</td></tr>
<tr><td>62</td><td>SDC</td><td>I</td><td>IF count matching output (PLL) input terminal.
If the IF frequency is matched, low is output from the PLL IC.
Low is always applied during AM mode in this system.
(Stop is executed only the by level difference.)</td></tr>
<tr><td>63</td><td>SDS</td><td>O</td><td>IF count start output terminal. When this terminal is made high, the IF count starts (PLL) and the SDC is made low if the IF frequency is matched.
If the SDL is made high during automatic station selection, this terminal is made high to start the IF counter. Ohterwise, the output is kept low.
CMOS output.</td></tr>
<tr><td>64</td><td>LCD</td><td>O</td><td>Output terminal for LCD data selection. When this terminal is high, the deta is used for LCD display. This output is connected to the LCD driver (Sanyo LC7582) CE terminal and used as the data latch signal.
CMOS output.</td></tr>
</table>

● IC Block Diagrams

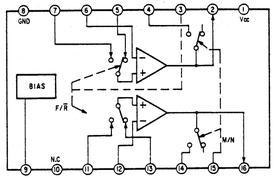
IC1 STK-3400



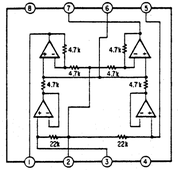
IC2 LM7000



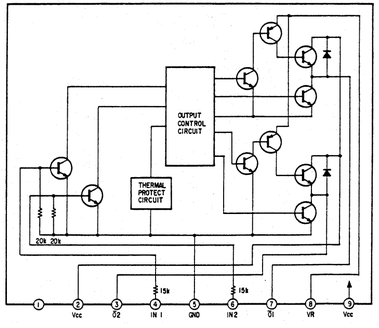
IC101 TA7705F



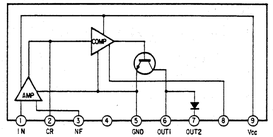
IC112 M5280FP



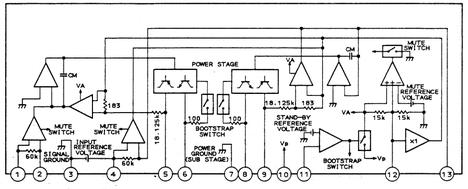
IC302 M54644BL



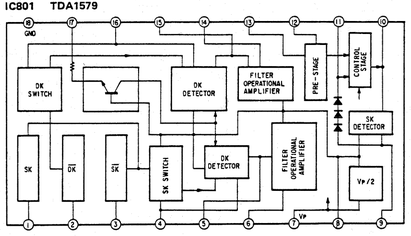
IC304 LA2000



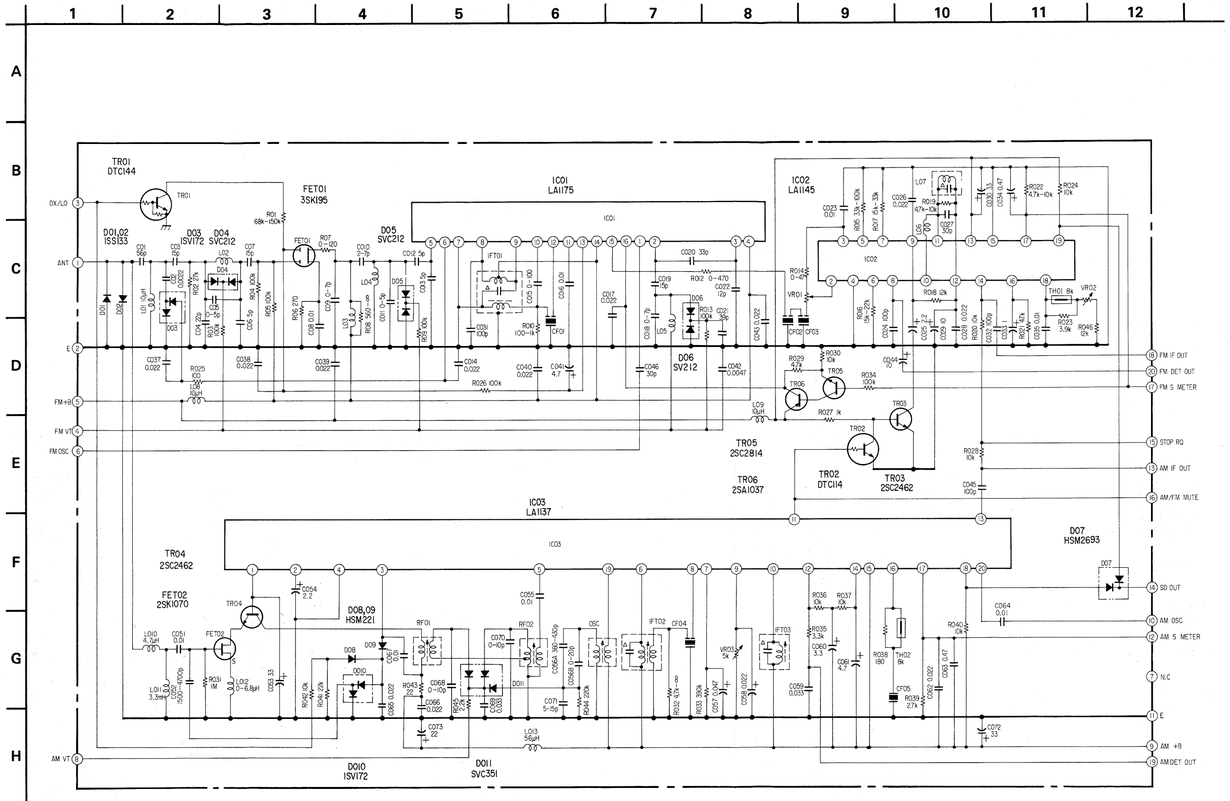
IC501 TDA1518Q



IC801 TDA1579



4-2. TUNER SECTION SCHEMATIC DIAGRAM



4-3. PRINTED WIRING BOARDS

Note:

- ○—○ : parts extracted from the component side.
- ●—● : parts extracted from the conductor side.
- ● : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.

● Semiconductor Lead Layouts

LA2000

ON2170-R-LF
ON2170-S-LF

MB8841-139K

RD10ES-B2
RD11ES-B2
RD3.9ES-B2
RD4.3ES-B1
RD4.7ES-B2
RD5.6ES-B2
RD6.2EL2
RD9.1ES-B2
1SS119

M54644BL

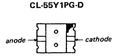
NMX3S900

1SR139-100

μPD75108G-E61-1B

1S2838

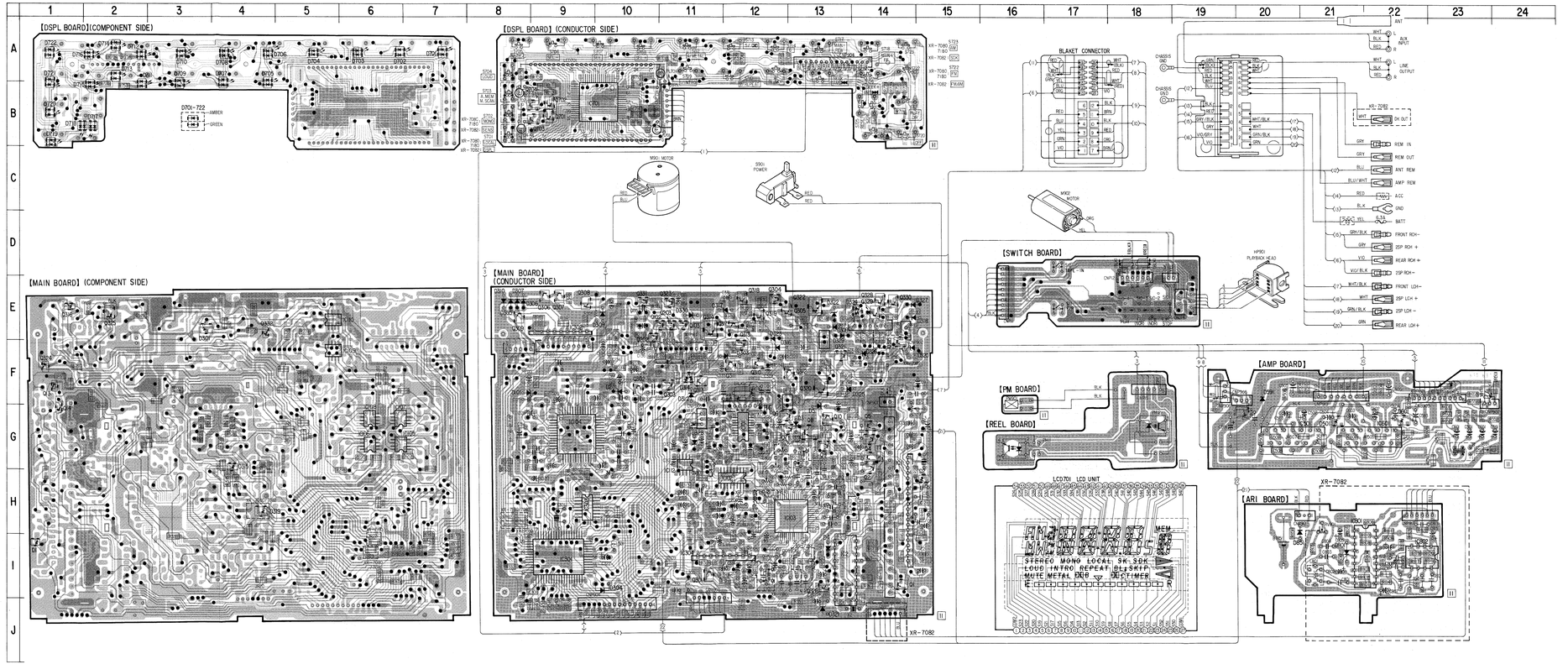
CL-55Y1PG-D

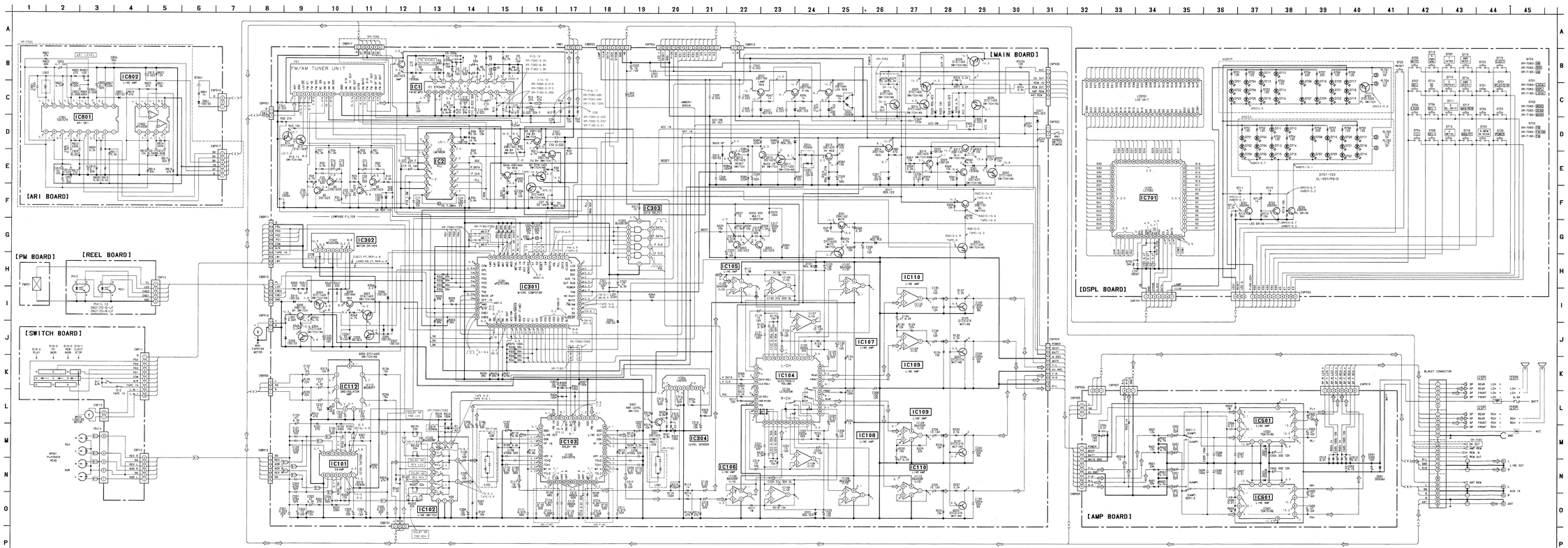


DSA3A4

● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	I-1	IC301	I-9
D2	H-15	IC302	E-9
D3	G-13	IC303	H-9
D4	I-13	IC304	I-11
D5	G-13	IC501	G-21
D101	F-8	IC601	G-22
D201	F-10	IC701	B-10
D301	E-3	IC801	I-21
D303	F-12	IC802	I-22
D304	I-10		
D305	E-8	PH11	G-16
D306	E-8	PH12	G-18
D307	E-8		
D308	E-13	Q1	I-14
D309	E-10	Q2	H-14
D310	E-8	Q3	G-14
D312	F-11	Q4	G-14
D314	F-11	Q5	G-14
D315	G-4	Q6	G-12
D316	F-12	Q7	G-12
D317	E-12	Q8	G-13
D318	E-14	Q9	G-13
D319	H-4	Q10	G-13
D320	F-14	Q13	F-1
D321	J-13	Q14	G-1
D322	E-13	Q102	E-10
D323	F-12	Q103	E-11
D324	E-14	Q202	F-10
D325	F-14	Q203	E-11
D326	F-14	Q301	I-11
D327	E-14	Q302	F-10
D328	G-11	Q303	F-11
D329	E-13	Q304	E-12
D330	E-11	Q305	E-13
D501	G-21	Q306	E-9
D501	F-20	Q307	E-9
D601	G-22	Q308	E-9
D701	A-7	Q309	E-8
D702	A-6	Q310	F-12
D703	A-6	Q311	F-12
D704	A-5	Q312	F-13
D705	A-4	Q313	F-11
D706	A-4	Q314	E-11
D707	A-4	Q315	F-14
D708	A-4	Q316	E-1
D709	A-3	Q317	E-12
D710	A-3	Q318	E-12
D711	B-2	Q319	E-12
D712	A-2	Q320	F-13
D713	A-2	Q321	F-13
D714	A-2	Q322	E-13
D715	B-2	Q323	E-11
D716	A-2	Q324	F-1
D717	B-2	Q325	E-2
D718	B-1	Q326	I-13
D719	B-1	Q328	E-14
D720	B-1	Q329	E-14
D721	A-1	Q330	E-14
D722	A-1	Q331	E-10
D801	I-21	Q332	E-4
D851	I-21	Q701	B-9
		Q702	B-9
IC1	H-14	Q703	B-9
IC2	I-13	Q704	B-9
IC101	G-12		
IC102	H-12		
IC103	H-13		
IC104	G-9		
IC105	G-6		
IC106	G-6		
IC107	G-6		
IC108	G-6		
IC109	F-5		
IC110	E-5		
IC112	H-11		





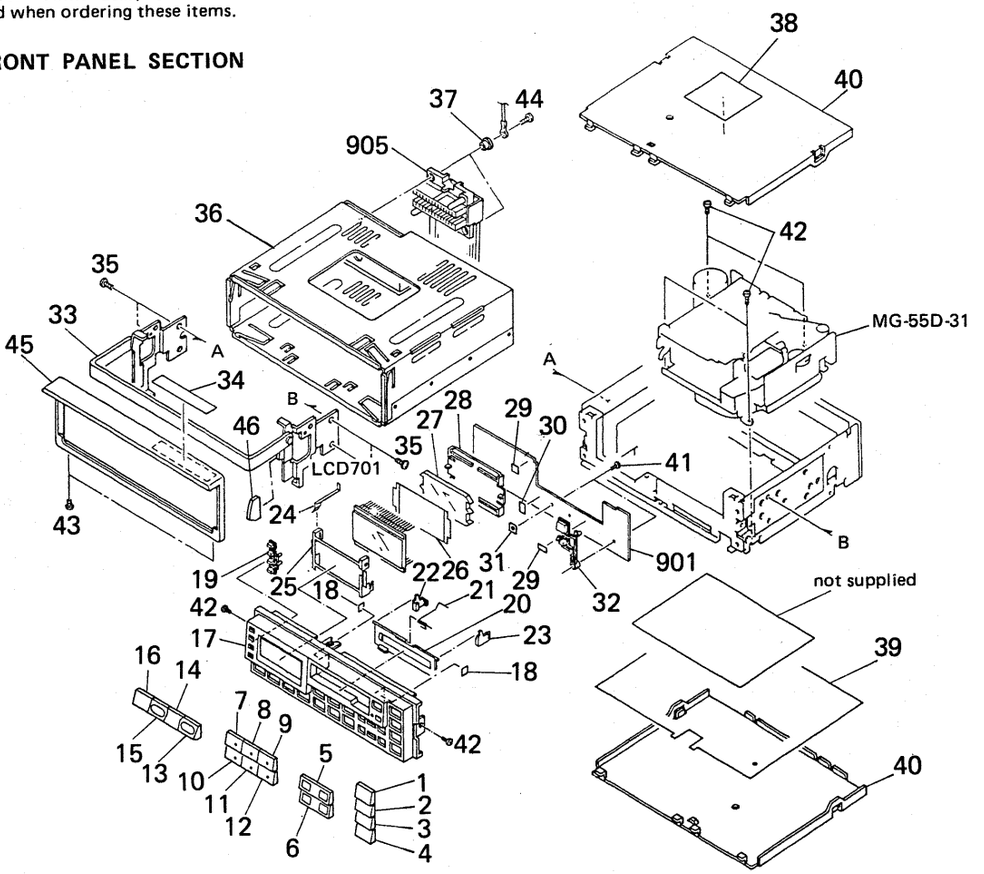
Note:
- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component
- ⊖ ═══ : B+ Line
- ⊖ ▭ : adjustment for repair.
- ⊖ Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM or PLAY
  ( ) : AM
- ⊖ Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- ⊖ Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- ⊖ Signal path.
  ⇨ : FM ⇦ : PB

SECTION 5
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts' Color

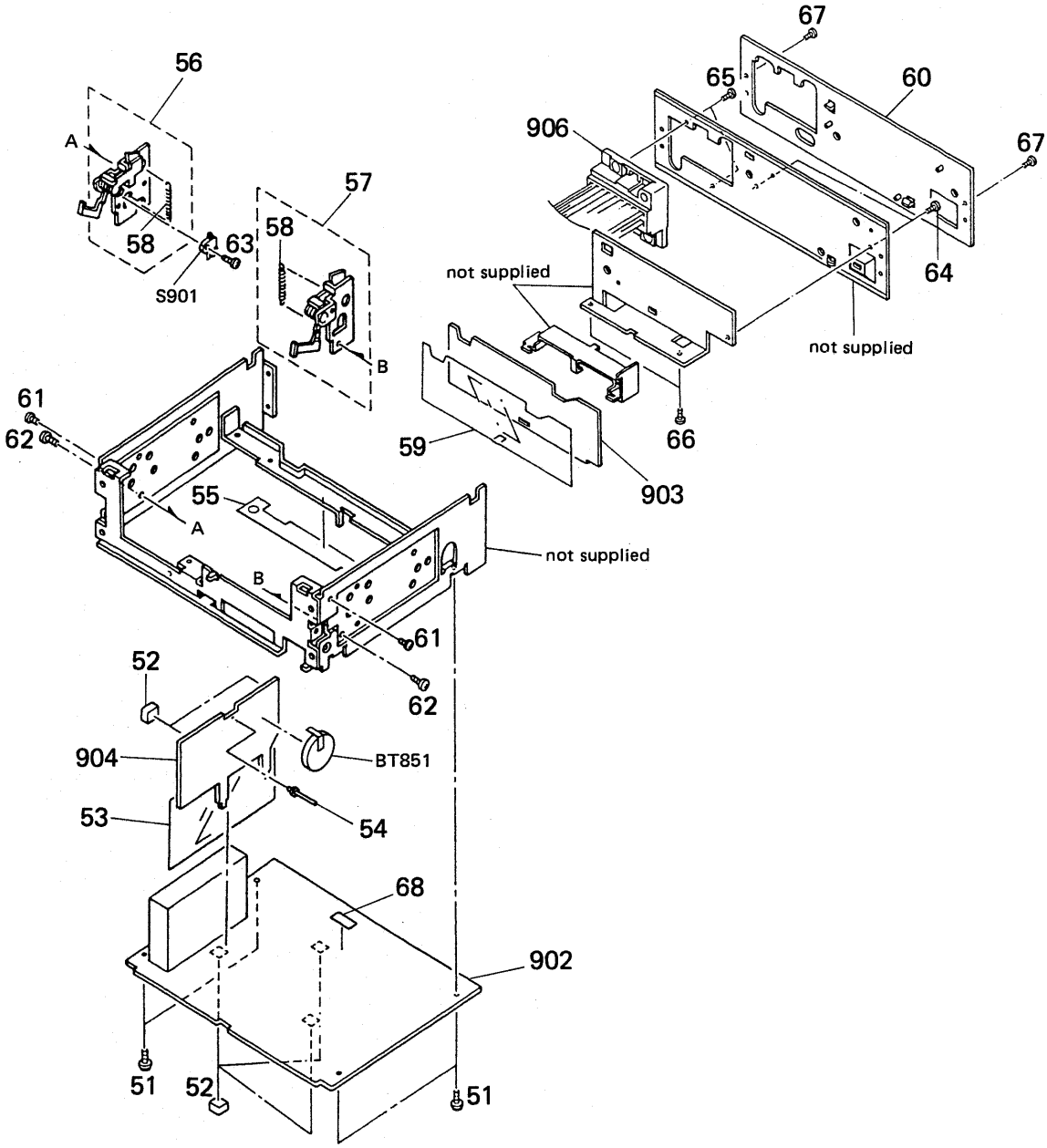
(1) FRONT PANEL SECTION



No.	Part No.	Description	Remarks
1	3-349-473-11	BUTTON (RU;N1)(OFF)	
2	3-349-491-01	BUTTON (M;N1)(TAPE)	
3	3-349-472-51	(7080,7180)...BUTTON (M;N1)(FM)	
	3-349-472-61	(7082).....BUTTON (M;N1)(FM/AM)	
4	3-349-474-11	(7080,7180)...BUTTON (RD;N1)(AM)	
	3-349-474-31	(7082).....BUTTON (RD;N1)(SDK)	
5	3-349-492-11	BUTTON (M;S2)(SEEK AMS)	
6	3-349-492-31	BUTTON (M;S2)(MANU)	
7	3-349-471-01	BUTTON (M;N1P)(1)	
8	3-349-471-11	BUTTON (M;N1P)(2)	
9	3-349-471-21	BUTTON (M;N1P)(3)	
10	3-349-471-61	BUTTON (M;N1P)(4)	
11	3-349-471-71	BUTTON (M;N1P)(5)	
12	3-349-471-81	BUTTON (M;N1P)(6)	
13	3-349-441-01	BUTTON (LEVEL. +)	
14	3-349-444-01	BUTTON (SELECT)	
15	3-349-442-01	BUTTON (LEVEL. -)	
18	*3-901-417-01	SPACER	
16	3-349-443-01	BUTTON (MUTE)	
17	3-349-445-02	(7080,7180)...PANEL, FRONT	
	3-349-445-12	(7082).....PANEL, FRONT	
19	3-349-450-01	BUTTON (4 GANG)	
20	3-349-449-01	(7180)...DOOR, CASSETTE	
	3-349-449-11	(7082)...DOOR, CASSETTE	
	3-349-449-21	(7080)...DOOR, CASSETTE	
21	3-349-454-01	SPRING (C DOOR), TORSION	
22	3-349-447-01	PLATE (LEFT), LIGHT GUIDE	
23	3-349-446-01	PLATE (RIGHT), LIGHT GUIDE	
24	*3-353-410-01	PLATE, GROUND	
25	*3-349-453-01	PLATE (LCD), GROUND	
26	3-349-440-01	SHEET (REFLECTOR)	

No.	Part No.	Description	Remarks
27	*3-349-438-01	PLATE (LCD), LIGHT GUIDE	
28	*3-349-439-01	HOLDER (LIGHT GUIDE PLATE)	
29	3-327-119-01	SPACER (A)	
30	9-911-863-XX	SPACER (A)	
31	*3-342-433-01	SHEET (A), ADHESIVE	
32	3-349-448-01	BUTTON (EJECT)	
33	X-3344-508-1	HANDLE ASSY	
34	*3-344-593-01	(7180)...LABEL (CAUTION HANDLE)	
	*3-344-594-01	(7080)...LABEL (CAUTION HANDLE)	
	*3-344-595-01	(7080)...LABEL (CAUTION HANDLE)	
35	3-344-561-01	SCREW (M4X5)	
36	X-3344-510-3	BRACKET ASSY	
37	3-344-536-01	COLLAR (JACK)	
38	*3-349-433-01	(7180;US).....LABEL, MODEL NUMBER (U)	
	*3-349-434-01	(7180;Canadian)...LABEL, MODEL NUMBER(CA)	
	*3-349-435-01	(7080)...LABEL, MODEL NUMBER (AE)	
	*3-349-436-01	(7082)...LABEL, MODEL NUMBER (AE6)	
39	*3-344-560-12	INSULATOR (3)	
40	*3-353-402-11	COVER	
41	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
42	7-621-770-87	SCREW +PTT 2.6X5 (S)	
43	7-627-553-38	SCREW, PRECISION +P 2X3	
44	7-682-548-04	SCREW +B 3X8	
45	3-344-564-01	FRAME, ORNAMENTAL	
46	3-344-526-01	BUTTON (RELESE)	
901	*A-3279-819-A	MOUNTED PCB (B), KEY	
	*1-630-640-11	PC BOARD, DSPL	
905	1-574-767-11	(7180)...CORD (WITH CONNECTOR)	
	1-574-769-11	(7080)...CORD (WITH CONNECTOR)	
	1-574-770-11	(7082)...CORD (WITH CONNECTOR)	
LCD701	1-808-724-11	DISPLAY PANEL, LIQUID CRYSTAL	

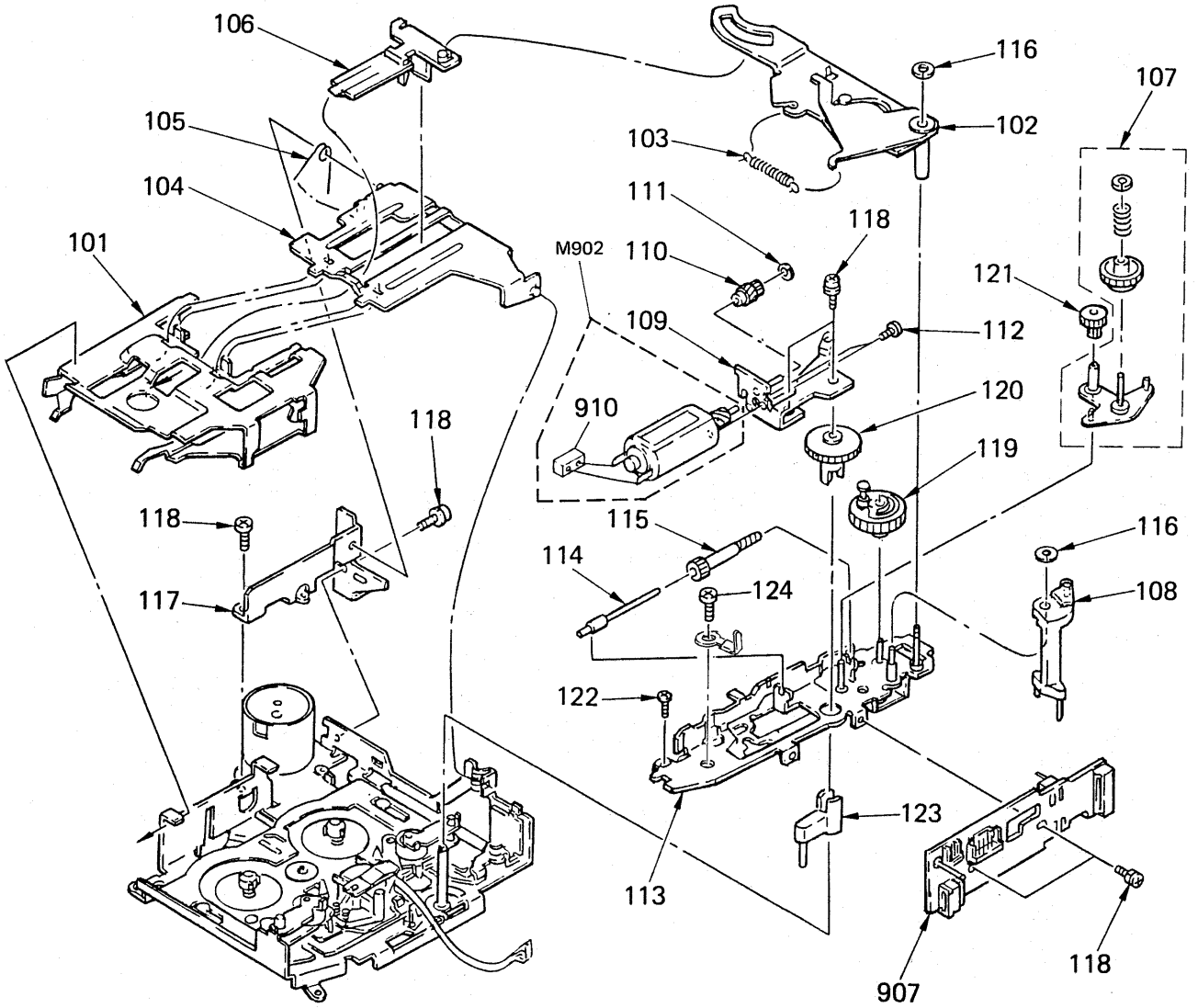
(2) CHASSIS SECTION



No.	Part No.	Description	Remarks
51	3-344-501-11	SCREW (+ PTT 3X8), GROUND POINT	
52	9-911-841-XX	CUSHION, CASSETTE LID	
53	*3-344-502-01	(7082)...INSULATOR (1)	
54	*3-847-723-00	PIN, LEAD	
55	*3-344-589-01	INSULATOR (4)	
56	X-3344-502-1	LOCK ASSY (LEFT) 58	
57	X-3344-503-1	LOCK ASSY (RIGHT) 58	
58	3-645-189-00	SPRING, TENSION	
59	*3-353-411-01	INSULATOR (POWER)	
60	*3-349-459-01	COVER	
61	7-627-553-38	SCREW, PRECISION +P 2X3	
62	7-621-773-86	SCREW +PTT 2.6X4 (S)	
63	7-621-283-00	SCREW +P 2X5	
64	7-685-132-19	SCREW +P 2.6X5 TYPE2 NON-SLIT	

No.	Part No.	Description	Remarks
65	7-682-547-04	SCREW +PTT 3X6 (S)	
66	7-621-770-87	SCREW +PTT 2.6X5 (S)	
67	7-685-793-01	SCREW +PTT 2.6X8 (S)	
68	3-564-738-00	SPACER	
902	*A-3216-718-A	(7180)...PC BOARD ASSY, MAIN	
	*A-3216-812-A	(7080)...PC BOARD ASSY, MAIN	
	*A-3216-813-A	(7082)...PC BOARD ASSY, MAIN	
903	*A-3271-377-A	MOUNTED PCB, POWER	
904	*A-3289-613-A	(7082)...MOUNTED PCB, ARI	
	*1-630-638-11	(7082)...PC BOARD, ARI	
906	1-574-768-11	CORD (WITH CONNECTOR)	
BT851	1-528-225-31	BATTERY, LITHIUM	
S901	1-570-771-11	SWITCH (POWER)	

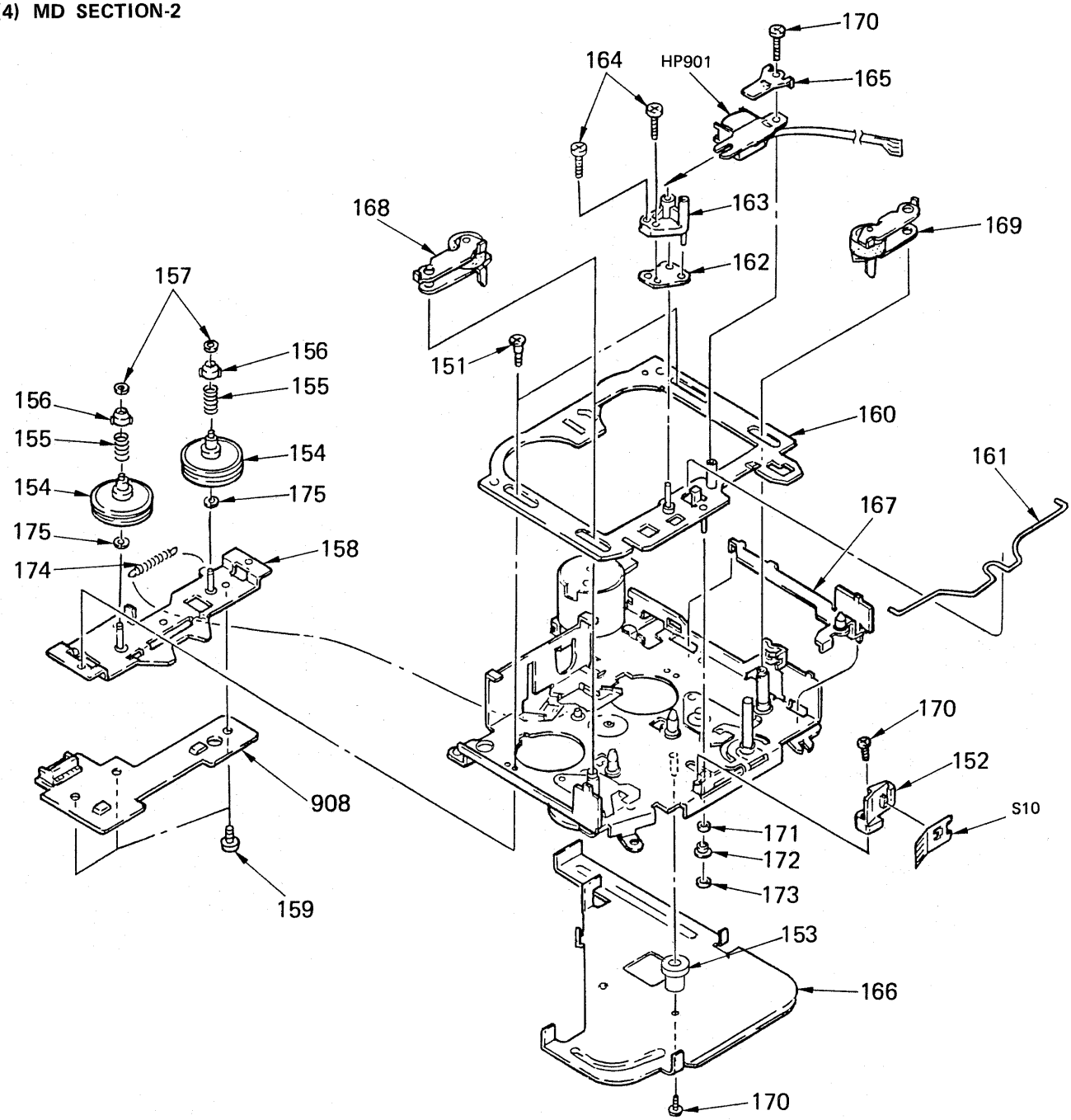
(3) MD SECTION-1



No.	Part No.	Description	Remarks
101	*3-344-103-01	HOUSING, CASSETTE	
102	*X-3344-121-1	ARM ASSY, SUCTION	
103	3-344-216-01	SPRING (SUCTION ARM), TENSION	
104	*X-3344-120-1	HANGER ASSY, HOUSING	
105	3-344-113-01	SPRING	
106	*3-344-118-01	CATCHER	
107	A-3239-954-A	GEAR ASSY, DRIVING ARM	
108	*X-3344-122-1	ARM ASSY, REVERSE	
109	*X-3344-110-1	BRACKET ASSY, MOTOR	
110	3-344-170-01	GEAR (A), DRIVING	
111	3-344-223-01	WASHER	
112	7-627-553-27	SCREW, PRECISION +P 2X2.5	
113	*X-3344-108-1	CHASSIS ASSY, MCU	

No.	Part No.	Description	Remarks
114	*3-344-157-01	SHAFT, DRIVING GEAR (B)	
115	3-344-156-01	GEAR (B), DRIVING	
116	3-344-222-01	WASHER	
117	*3-344-112-11	BRACKET, HANGER	
118	7-628-253-00	SCREW +PS 2X4	
119	X-3344-119-1	GEAR ASSY, LOADING CAM	
120	3-344-114-01	GEAR, MODE	
121	3-344-108-01	GEAR (A), FRICTION	
122	7-621-255-25	SCREW +P 2X4	
123	X-3344-117-1	ARM ASSY, MODE	
124	7-621-773-86	SCREW +2.6X4	
907	*1-624-413-11	PC BOARD, SWITCH	
910	*1-563-470-11	HOUSING, CONNECTOR 2P	
M902	A-3239-956-B	MOTOR SUB ASSY, L	

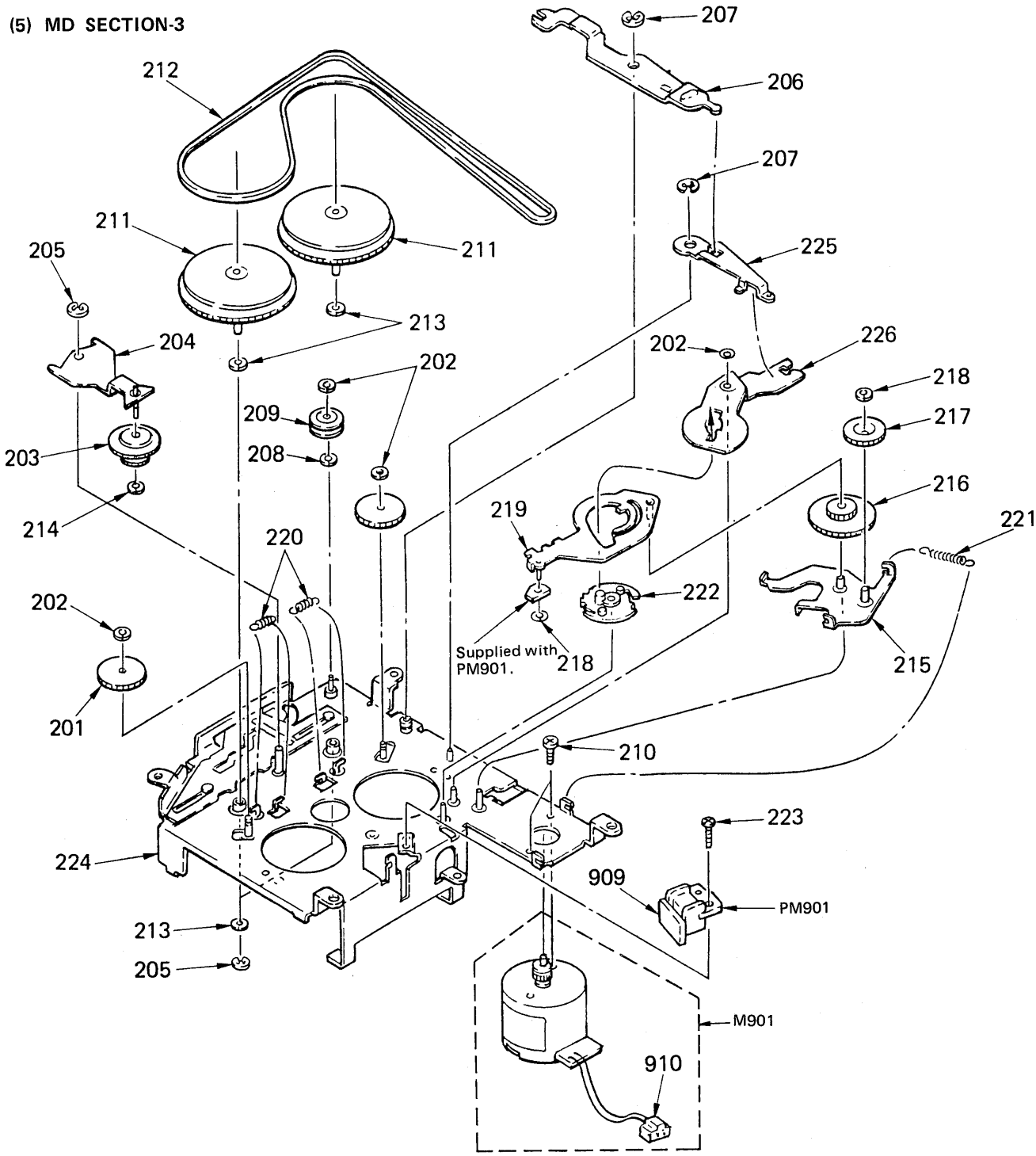
(4) MD SECTION-2



No.	Part No.	Description	Remarks
151	3-344-110-01	SCREW (HB), STEP	
152	*3-344-154-01	HOLDER, CONTACT	
153	3-344-251-01	RETAINER, MODE LEVER	
154	X-3344-104-1	TABLE ASSY, REEL	
155	3-344-143-01	SPRING (BT), COMPRESSION	
156	3-344-136-01	CAP, REEL	
157	3-344-224-01	WASHER	
158	*X-3344-105-1	BRACKET ASSY, REEL TABLE	
159	7-627-553-27	SCREW, PRECISION +P 2X2.5	
160	*X-3344-103-1	BASE ASSY, HEAD	
161	3-344-129-01	SPRING	
162	3-344-128-01	SEAM, DAH	
163	3-344-127-01	ARM, DAH	
164	7-627-850-67	SCREW, PRECISION +P 1.4X4	

No.	Part No.	Description	Remarks
165	3-344-130-01	RETAINER, HEAD	
166	*3-344-220-01	COVER, MD	
167	*X-3344-118-1	LEVER ASSY, RVS CONVERSION	
168	X-3344-116-1	ARM (F) ASSY, PINCH	
169	X-3344-115-1	ARM (R) ASSY, PINCH	
170	7-627-850-18	SCREW, PRECISION +P 1.4X2.5	
171	3-344-117-01	ROLLER (B), H/B	
172	3-344-116-01	ROLLER (A), H/B	
173	3-344-222-01	WASHER	
174	3-344-217-01	SPRING (CAM LOCK LEVER), TENTION	
175	3-701-437-11	POLY-SLIDER (A)	
908	*1-628-613-11	PC BOARD, REEL	
HP901	1-543-506-11	HEAD, MAGNETIC (PLAYBACK)	
S10	3-344-155-01	CONTACT (SWITCH)	

(5) MD SECTION-3



No.	Part No.	Description	Remarks
201	3-344-104-01	GEAR, PLAY	
202	3-344-222-01	WASHER	
203	X-3344-102-1	GEAR ASSY, FR	
204	*X-3344-101-1	ARM ASSY, FR	
205	3-590-768-00	RING (A), E	
206	*3-344-107-01	ARM, POWER	
207	7-624-104-04	STOP RING 2.0, TYPE -E	
208	3-701-436-01	WASHER, 1.6	
209	3-344-105-01	PULLEY (ASSY), MIDWAY	
210	7-627-553-27	SCREW, PRECISION +P 2X2.5	
211	3-344-231-01	FLYWHEEL (A)	
212	3-344-115-01	BELT	
213	3-701-437-11	POLY-SLIDER (A)	
214	3-344-224-01	WASHER	
215	*X-3344-106-1	LEVER ASSY, RVS GEAR (B)	

No.	Part No.	Description	Remarks
216	3-344-146-01	GEAR (B), RVS	
217	3-344-147-01	GEAR (A), RVS	
218	3-344-223-01	WASHER	
219	X-3344-107-1	LEVER ASSY, CAM LOCK	
220	3-344-218-01	SPRING (PLAY ARM), TENSION	
221	3-344-215-01	SPRING, TENSION	
222	3-344-119-01	GEAR, RVS CAM	
223	7-627-850-67	SCREW, PRECISION +P 1.4X4	
224	*X-3344-135-1	CHASSIS ASSY, MECHANICAL	
225	*3-344-106-01	LEVER, LDG	
226	*X-3344-114-1	LEVER ASSY, RVS	
909	1-628-613-11	PC BOARD, PM	
910	*1-563-470-11	HOUSING, CONNECTOR 2P	
M901	X-3344-136-1	MOTOR SUB ASSY, CAPSTAN	
PM901	1-454-461-11	SOLENOID, PLUNGER	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description
901	*A-3279-819-A	MOUNTED PCB (B), KEY
	*1-630-640-11	PC BOARD, DSPL
902	*A-3216-718-A	(7180)...PC BOARD ASSY, MAIN
	*A-3216-812-A	(7080)...PC BOARD ASSY, MAIN
	*A-3216-813-A	(7082)...PC BOARD ASSY, MAIN
903	*A-3271-377-A	MOUNTED PCB, POWER
904	*A-3289-613-A	(7082)...MOUNTED PCB, ARI
	*1-630-638-11	(7082)...PC BOARD, ARI
905	1-574-767-11	(7180)...CORD (WITH CONNECTOR)
	1-574-769-11	(7080)...CORD (WITH CONNECTOR)
	1-574-770-11	(7080)...CORD (WITH CONNECTOR)
906	1-574-768-11	CORD (WITH CONNECTOR)
907	*1-624-413-11	PC BOARD, SWITCH
908	*1-628-613-11	PC BOARD, REEL
909	*1-624-412-11	PC BOARD, PM
910	*1-563-470-11	HOUSING, CONNECTOR 2P
BT851	1-528-225-31	BATTERY, LITHIUM
C1	1-126-157-11	ELECT 10MF 20% 16V
C2	1-124-234-00	ELECT 22MF 20% 16V
C3	1-126-281-11	ELECT 4.7MF 20% 16V
C4	1-130-475-00	MYLAR 0.0022MF 5% 50V
C5	1-163-189-00	CERAMIC CHIP 220PF 5% 50V
C6	1-124-438-00	ELECT 1MF 20% 50V
C7	1-124-464-11	ELECT 0.22MF 20% 50V
C8	1-126-157-11	ELECT 10MF 20% 16V
C9	1-126-281-11	ELECT 4.7MF 20% 16V
C10	1-163-053-00	CERAMIC CHIP 0.0033MF 10% 50V
C11	1-163-157-00	FILM 0.022MF 5% 50V
C12	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C13	1-124-438-00	ELECT 1MF 20% 50V
C14	1-136-155-00	(7080)...FILM 0.015MF 5% 50V
C14	1-136-164-00	(7180)...FILM 0.082MF 5% 50V
C14	1-136-486-00	(7082)...FILM 0.012MF 5% 50V
C15	1-136-155-00	(7080)...FILM 0.015MF 5% 50V
C15	1-136-164-00	(7180)...FILM 0.082MF 5% 50V
C15	1-136-486-00	(7082)...FILM 0.012MF 5% 50V
C16	1-163-161-00	CERAMIC CHIP 15PF 5% 50V
C17	1-163-161-00	CERAMIC CHIP 15PF 5% 50V
C18	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C19	1-126-157-11	ELECT 10MF 20% 16V
C20	1-136-165-00	FILM 0.1MF 5% 50V
C21	1-126-161-11	ELECT 2.2MF 20% 35V
C22	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C23	1-126-566-11	ELECT 3.3MF 20% 25V
C24	1-126-566-11	ELECT 3.3MF 20% 25V
C25	1-163-157-00	FILM 0.022MF 5% 50V
C26	1-163-059-00	CERAMIC CHIP 0.01MF 10% 50V
C27	1-124-242-00	ELECT 33MF 20% 16V
C28	1-163-059-00	(7180)...CERAMIC CHIP 0.01MF 10% 50V
C28	1-163-063-00	(7080/7082)... CERAMIC CHIP 0.022MF 10% 50V
C29	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C30	1-163-053-00	CERAMIC CHIP 0.0033MF 10% 50V
C32	1-124-584-00	ELECT 100MF 20% 10V
C33	1-163-063-00	CERAMIC CHIP 0.022MF 10% 50V
C101	1-130-467-00	MYLAR 470PF 5% 50V
C102	1-130-467-00	MYLAR 470PF 5% 50V
C103	1-126-154-11	ELECT 47MF 20% 6.3V
C104	1-136-153-00	FILM 0.01MF 5% 50V
C105	1-126-157-11	ELECT 10MF 20% 16V
C106	1-126-159-11	ELECT 0.47MF 20% 50V
C107	1-126-176-11	ELECT 220MF 20% 10V
C108	1-130-479-00	MYLAR 0.0047MF 5% 50V
C109	1-136-173-00	FILM 0.47MF 5% 50V
C110	1-136-167-00	FILM 0.15MF 5% 50V
C111	1-130-485-00	MYLAR 0.015MF 5% 50V
C112	1-136-169-00	(7180)...FILM 0.22MF 5% 50V
C113	1-136-175-00	(7180)...FILM 0.068MF 5% 50V
C114	1-136-161-00	(7180)...FILM 0.047MF 5% 50V
C115	1-130-481-00	MYLAR 0.0068MF 5% 50V
C116	1-136-153-00	FILM 0.01MF 5% 50V
C117	1-126-157-11	ELECT 10MF 20% 16V
C118	1-124-464-11	ELECT 0.22MF 20% 50V
C119	1-126-157-11	ELECT 10MF 20% 16V
C120	1-163-167-00	CERAMIC CHIP 27PF 5% 50V
C121	1-130-476-00	MYLAR 0.0027MF 5% 50V
C122	1-136-162-00	FILM 0.056MF 5% 50V
C123	1-136-162-00	FILM 0.056MF 5% 50V
C124	1-126-157-11	ELECT 10MF 20% 16V
C125	1-130-477-00	MYLAR 0.0033MF 5% 50V
C128	1-126-157-11	ELECT 10MF 20% 16V
C129	1-124-464-11	ELECT 0.22MF 20% 50V
C130	1-126-157-11	ELECT 10MF 20% 16V
C133	1-124-584-00	ELECT 100MF 20% 10V
C134	1-126-154-11	ELECT 47MF 20% 6.3V
C135	1-126-157-11	ELECT 10MF 20% 16V
C136	1-126-157-11	ELECT 10MF 20% 16V
C137	1-126-281-11	ELECT 4.7MF 20% 16V

Ref.No.	Part No.	Description			
C139	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C140	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C201	1-130-467-00	MYLAR	470PF	5%	50V
C202	1-130-467-00	MYLAR	470PF	5%	50V
C203	1-126-154-11	ELECT	47MF	20%	6.3V
C204	1-136-153-00	FILM	0.01MF	5%	50V
C205	1-126-157-11	ELECT	10MF	20%	16V
C206	1-126-159-11	ELECT	0.47MF	20%	50V
C207	1-126-176-11	ELECT	220MF	20%	10V
C208	1-130-479-00	MYLAR	0.0047MF	5%	50V
C209	1-136-173-00	FILM	0.47MF	5%	50V
C210	1-136-167-00	FILM	0.15MF	5%	50V
C211	1-130-485-00	MYLAR	0.015MF	5%	50V
C212	1-136-169-00	(7180)...FILM	0.22MF	5%	50V
C213	1-136-175-00	(7180)...FILM	0.068MF	5%	50V
C214	1-136-161-00	(7180)...FILM	0.047MF	5%	50V
C215	1-130-481-00	MYLAR	0.0068MF	5%	50V
C216	1-136-153-00	FILM	0.01MF	5%	50V
C217	1-126-157-11	ELECT	10MF	20%	16V
C218	1-124-464-11	ELECT	0.22MF	20%	50V
C219	1-126-157-11	ELECT	10MF	20%	16V
C220	1-163-167-00	CERAMIC CHIP	27PF	5%	50V
C221	1-130-476-00	MYLAR	0.0027MF	5%	50V
C222	1-136-162-00	FILM	0.056MF	5%	50V
C223	1-136-162-00	FILM	0.056MF	5%	50V
C224	1-126-157-11	ELECT	10MF	20%	16V
C225	1-130-477-00	MYLAR	0.0033MF	5%	50V
C228	1-126-157-11	ELECT	10MF	20%	16V
C229	1-124-464-11	ELECT	0.22MF	20%	50V
C230	1-126-157-11	ELECT	10MF	20%	16V
C233	1-124-584-00	ELECT	100MF	20%	10V
C234	1-126-154-11	ELECT	47MF	20%	6.3V
C235	1-126-157-11	ELECT	10MF	20%	16V
C236	1-126-157-11	ELECT	10MF	20%	16V
C237	1-126-281-11	ELECT	4.7MF	20%	16V
C239	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C240	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C301	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C302	1-126-157-11	ELECT	10MF	20%	16V
C303	1-124-229-00	ELECT	33MF	20%	10V
C304	1-126-157-11	ELECT	10MF	20%	16V
C305	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C306	1-124-229-00	ELECT	33MF	20%	10V
C307	1-124-229-00	ELECT	33MF	20%	10V
C308	1-124-584-00	ELECT	100MF	20%	10V
C309	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C310	1-126-154-11	ELECT	47MF	20%	6.3V
C311	1-124-229-00	ELECT	33MF	20%	10V
C312	1-124-584-00	ELECT	100MF	20%	10V
C313	1-126-159-11	ELECT	0.47MF	20%	50V
C314	1-126-159-11	ELECT	0.47MF	20%	50V
C315	1-163-157-00	FILM	0.022MF	5%	50V
C316	1-124-584-00	ELECT	100MF	20%	10V
C317	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C318	1-136-156-00	FILM	0.018MF	5%	50V
C319	1-136-156-00	FILM	0.018MF	5%	50V
C320	1-126-157-11	ELECT	10MF	20%	16V
C321	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V

Ref.No.	Part No.	Description			
C322	1-126-154-11	ELECT	47MF	20%	6.3V
C323	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C324	1-163-169-00	CERAMIC CHIP	33PF	5%	50V
C325	1-124-360-00	ELECT	1000MF	20%	16V
C326	1-124-242-00	ELECT	33MF	20%	16V
C327	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C328	1-124-438-00	ELECT	1MF	20%	50V
C329	1-124-438-00	ELECT	1MF	20%	50V
C331	1-124-229-00	ELECT	33MF	20%	10V
C332	1-126-157-11	ELECT	10MF	20%	16V
C333	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C334	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C335	1-124-229-00	ELECT	33MF	20%	10V
C336	1-126-157-11	ELECT	10MF	20%	16V
C338	1-126-157-11	ELECT	10MF	20%	16V
C339	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C340	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C341	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C342	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C343	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C344	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C346	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C347	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C348	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C349	1-163-189-00	CERAMIC CHIP	220PF	5%	50V
C501	1-124-257-00	ELECT	2.2MF	20%	50V
C502	1-124-589-11	ELECT	47MF	20%	16V
C503	1-124-589-11	ELECT	47MF	20%	16V
C504	1-124-604-00	ELECT	330MF	20%	10V
C505	1-124-559-51	ELECT	1000MF	20%	10V
C506	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C507	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C508	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C509	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C510	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C551	1-124-257-00	ELECT	2.2MF	20%	50V
C591	1-124-343-00	ELECT	2200MF	20%	16V
C592	1-136-167-00	FILM	0.15MF	5%	50V
C593	1-126-101-11	ELECT	100MF	20%	16V
C594	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C601	1-124-257-00	ELECT	2.2MF	20%	50V
C602	1-124-589-11	ELECT	47MF	20%	16V
C603	1-124-589-11	ELECT	47MF	20%	16V
C604	1-124-604-00	ELECT	330MF	20%	10V
C605	1-124-559-51	ELECT	1000MF	20%	10V
C606	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C607	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C608	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C609	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C610	1-163-059-00	CERAMIC CHIP	0.01MF	10%	50V
C651	1-124-257-00	ELECT	2.2MF	20%	50V
C791	1-163-201-00	CERAMIC CHIP	680PF	5%	50V
C792	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C793	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C794	1-162-637-11	CERAMIC CHIP	0.47MF		16V
C801	1-130-477-00	(7082)...FILM	0.0033MF	5%	50V
C802	1-126-094-11	(7082)...ELECT	4.7MF	20%	16V
C803	1-136-175-00	(7082)...FILM	0.068MF	5%	50V

Ref.No.	Part No.	Description
C804	1-136-175-00	(7082)...FILM 0.068MF 5% 50V
C805	1-124-463-00	(7082)...ELECT 0.1MF 20% 50V
C806	1-163-175-00	(7082)...CERAMIC CHIP 56PF 5% 50V
C807	1-124-463-00	(7082)...ELECT 0.1MF 20% 50V
C808	1-136-161-00	(7082)...FILM 0.047MF 5% 50V
C809	1-136-161-00	(7082)...FILM 0.047MF 5% 50V
C810	1-124-463-00	(7082)...ELECT 0.1MF 20% 50V
C811	1-136-175-00	(7082)...FILM 0.068MF 5% 50V
C812	1-136-175-00	(7082)...FILM 0.068MF 5% 50V
C813	1-163-157-00	(7082)...FILM 0.022MF 5% 50V
C814	1-163-157-00	(7082)...FILM 0.022MF 5% 50V
C815	1-124-229-00	(7082)...ELECT 33MF 20% 10V
CNJ14	1-565-038-11	CONNECTOR, F.P.C 5P
CNP11	*1-566-007-11	PIN, CONNECTOR (PC BOARD) 10P
CNP12	*1-566-003-11	PIN, CONNECTOR (PC BOARD) 6P
CNP13	*1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P
CNP15	*1-566-002-11	PIN, CONNECTOR (PC BOARD) 5P
CNP791	*1-506-989-11	PIN, CONNECTOR (PC BOARD) 7P
CNP901	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP902	*1-506-984-31	PIN, CONNECTOR (PC BOARD) 2P
CNP904	*1-566-011-11	PIN, CONNECTOR (PC BOARD) 14P
CNP905	*1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P
CNP906	*1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P
CNP907	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP908	*1-506-989-11	PIN, CONNECTOR (PC BOARD) 7P
CNP909	*1-506-993-11	PIN, CONNECTOR (PC BOARD) 11P
CNP910	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P
CNP916	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P
CNP917	*1-506-988-11	(7082)...PIN, CONNECTOR (PC BOARD) 6P
CNP919	*1-564-511-11	PLUG, CONNECTOR 8P
D1	8-719-104-34	DIODE 1S2836
D2	8-719-104-34	DIODE 1S2836
D3	8-719-110-13	DIODE RD9.1ES-B2
D4	8-719-911-19	DIODE 1SS119
D5	8-719-110-13	DIODE RD9.1ES-B2
D101	8-719-109-74	DIODE RD4.3ES-B1
D201	8-719-109-74	DIODE RD4.3ES-B1
D301	8-719-104-34	DIODE 1S2836
D303	8-719-101-61	DIODE RD6.2EL2
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D306	8-719-911-19	DIODE 1SS119
D307	8-719-911-19	DIODE 1SS119
D308	8-719-911-19	DIODE 1SS119
D309	8-719-110-17	DIODE RD10ES-B2
D310	8-719-911-19	DIODE 1SS119
D312	8-719-911-19	DIODE 1SS119
D314	8-719-104-34	DIODE 1S2836
D315	8-719-104-34	DIODE 1S2836
D316	8-719-101-61	DIODE RD6.2EL2
D317	8-719-110-13	DIODE RD9.1ES-B2
D318	8-719-109-89	DIODE RD5.6ES-B2
D319	8-719-104-34	(7080/7082)...DIODE 1S2836
D320	8-719-109-89	DIODE RD5.6ES-B2
D321	8-719-109-89	DIODE RD5.6ES-B2
D322	8-719-110-22	DIODE RD11ES-B2
D323	8-719-974-59	DIODE 1SR139-100

Ref.No.	Part No.	Description
D324	8-719-104-31	DIODE 1S2838
D325	8-719-110-13	DIODE RD9.1ES-B2
D326	8-719-110-13	DIODE RD9.1ES-B2
D327	8-719-109-89	DIODE RD5.6ES-B2
D328	8-719-109-81	DIODE RD4.7ES-B2
D329	8-719-974-59	DIODE 1SR139-100
D330	8-719-109-72	DIODE RD3.9ES-B2
D501	8-719-104-31	DIODE 1S2838
D591	8-719-945-59	DIODE DSA3A4
D601	8-719-104-31	DIODE 1S2838
D701	8-719-975-27	DIODE CL-55Y/PG-D
D702	8-719-975-27	DIODE CL-55Y/PG-D
D703	8-719-975-27	DIODE CL-55Y/PG-D
D704	8-719-975-27	DIODE CL-55Y/PG-D
D705	8-719-975-27	DIODE CL-55Y/PG-D
D706	8-719-975-27	DIODE CL-55Y/PG-D
D707	8-719-975-27	DIODE CL-55Y/PG-D
D708	8-719-975-27	DIODE CL-55Y/PG-D
D709	8-719-975-27	DIODE CL-55Y/PG-D
D710	8-719-975-27	DIODE CL-55Y/PG-D
D711	8-719-975-27	DIODE CL-55Y/PG-D
D712	8-719-975-27	DIODE CL-55Y/PG-D
D713	8-719-975-27	DIODE CL-55Y/PG-D
D714	8-719-975-27	DIODE CL-55Y/PG-D
D715	8-719-975-27	DIODE CL-55Y/PG-D
D716	8-719-975-27	DIODE CL-55Y/PG-D
D717	8-719-975-27	DIODE CL-55Y/PG-D
D718	8-719-975-27	DIODE CL-55Y/PG-D
D719	8-719-975-27	DIODE CL-55Y/PG-D
D720	8-719-975-27	DIODE CL-55Y/PG-D
D721	8-719-975-27	DIODE CL-55Y/PG-D
D722	8-719-975-27	DIODE CL-55Y/PG-D
D801	8-719-911-19	(7082)...DIODE 1SS119
D851	8-719-911-19	(7082)...DIODE 1SS119
FE1	1-465-193-11	TUNER UNIT (FM,AM)
HP901	1-543-506-11	HEAD, MAGNETIC (PLAYBACK)
IC1	1-808-515-11	IC NMX3S900
IC2	8-759-821-41	IC LM7000N
IC101	8-759-206-48	IC TA7705F
IC102	8-759-106-22	IC UPD4052BG
IC103	8-752-031-27	IC CXA1097Q
IC104	8-759-820-15	IC LC7537AN
IC105	8-759-100-96	IC UPC4558G2
IC106	8-759-100-96	IC UPC4558G2
IC107	8-759-100-96	IC UPC4558G2
IC108	8-759-100-96	IC UPC4558G2
IC109	8-759-100-96	IC UPC4558G2
IC110	8-759-100-96	IC UPC4558G2
IC112	8-759-631-00	IC M5280FP
IC301	8-759-145-85	IC UPD75108G-E61-1B
IC302	8-759-631-01	IC M54644BL
IC303	8-759-106-29	IC UPD4081BG
IC304	8-759-820-87	IC LA2000
IC501	8-759-981-45	IC TDA1518Q
IC601	8-759-981-45	IC TDA1518Q

Ref.No.	Part No.	Description
IC701	8-759-821-44	IC LC-7582
IC801	8-759-971-69	(7082)...IC TDA1579
IC802	8-759-145-58	(7082)...IC UPC4558C
JR1	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR2	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR3	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR4	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR5	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR6	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR7	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR8	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR9	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR10	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR11	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR14	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR15	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR16	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR17	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR18	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR19	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR20	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR21	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR22	1-216-296-00	(7180).....METAL GLAZE 0 5% 1/8W
JR23	1-216-296-00	(7080/7082)...METAL GLAZE 0 5% 1/8W
JR101	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR102	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR103	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR104	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR105	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR106	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR107	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR108	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR109	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR110	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR111	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR112	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR113	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR114	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR115	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR116	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR191	1-216-296-00	(7080/7082)...METAL GLAZE 0 5% 1/8W
JR192	1-216-296-00	(7082/7180)...METAL GLAZE 0 5% 1/8W
JR501	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR502	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR503	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR504	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR505	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR506	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR507	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR801	1-216-296-00	(7082)...METAL GLAZE 0 5% 1/8W
L1	1-410-513-11	INDUCTOR 22UH
L101	1-235-186-00	(7180)...ENCAPSULATED COMPONENT
L201	1-235-186-00	(7180)...ENCAPSULATED COMPONENT
L301	1-410-513-11	INDUCTOR 22UH
L302	1-408-111-00	INDUCTOR 3.3UH
L303	1-410-513-11	INDUCTOR 22UH
L801	1-424-036-11	(7082)...COIL (FILTER)
LCD701	1-808-724-11	DISPLAY PANEL, LIQUID CRYSTAL

Ref.No.	Part No.	Description
M901	X-3344-136-1	MOTOR ASSY, CAPSTAN
M902	A-3239-956-B	MOTOR SUB ASSY, L
PH11,12	8-719-420-46	PHOTO SENSOR ON2170-R-LF
PH11,12	8-719-420-47	PHOTO SENSOR ON2170-S-LF
PL701	1-518-646-11	LAMP, PILOT
PL702	1-518-648-11	LAMP, PILOT
PL703	1-518-648-11	LAMP, PILOT
PL704	1-518-646-11	LAMP, PILOT
PM901	1-454-461-11	SOLENOID, PLUNGER
Q1	8-729-100-66	TRANSISTOR 2SC1623
Q2	8-729-100-66	TRANSISTOR 2SC1623
Q3	8-729-100-66	TRANSISTOR 2SC1623
Q4	8-729-100-66	TRANSISTOR 2SC1623
Q5	8-729-100-66	TRANSISTOR 2SC1623
Q6	8-729-901-01	TRANSISTOR DTC144EK
Q7	8-729-901-04	TRANSISTOR DTA114EK
Q8	8-729-807-12	TRANSISTOR 2SD1802S
Q9	8-729-106-60	TRANSISTOR 2SB1115A
Q10	8-729-106-60	TRANSISTOR 2SB1115A
Q13	8-729-901-04	TRANSISTOR DTA114EK
Q14	8-729-901-01	TRANSISTOR DTC144EK
Q102	8-729-920-21	TRANSISTOR DTC314TKH04
Q103	8-729-920-21	TRANSISTOR DTC314TKH04
Q202	8-729-920-21	TRANSISTOR DTC314TKH04
Q203	8-729-920-21	TRANSISTOR DTC314TKH04
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-100-66	TRANSISTOR 2SC1623
Q303	8-729-100-66	TRANSISTOR 2SC1623
Q304	8-729-900-53	TRANSISTOR DTC114EK
Q305	8-729-106-60	TRANSISTOR 2SB1115A
Q306	8-729-901-01	TRANSISTOR DTC144EK
Q307	8-729-901-04	TRANSISTOR DTA114EK
Q308	8-729-903-63	TRANSISTOR 2SD1664-R
Q309	8-729-900-53	TRANSISTOR DTC114EK
Q310	8-729-100-66	TRANSISTOR 2SC1623
Q311	8-729-900-53	TRANSISTOR DTC114EK
Q312	8-729-100-66	TRANSISTOR 2SC1623
Q313	8-729-100-66	TRANSISTOR 2SC1623
Q314	8-729-807-12	TRANSISTOR 2SD1802S
Q315	8-729-900-53	(7082)...TRANSISTOR DTC114EK
Q316	8-729-900-53	TRANSISTOR DTC114EK
Q317	8-729-106-60	TRANSISTOR 2SB1115A
Q318	8-729-100-66	TRANSISTOR 2SC1623
Q319	8-729-100-66	TRANSISTOR 2SC1623
Q320	8-729-807-12	TRANSISTOR 2SD1802-S
Q321	8-729-903-63	TRANSISTOR 2SD1664-R
Q322	8-729-807-12	TRANSISTOR 2SD1802S
Q323	8-729-901-01	TRANSISTOR DTC144EK
Q324	8-729-900-53	TRANSISTOR DTC114EK
Q325	8-729-106-60	TRANSISTOR 2SB1115A
Q326	8-729-903-63	TRANSISTOR 2SD1664-R
Q328	8-729-901-04	TRANSISTOR DTA114EK
Q329	8-729-901-04	TRANSISTOR DTA114EK
Q330	8-729-900-53	TRANSISTOR DTC114EK
Q331	8-729-216-22	TRANSISTOR 2SA1162-G
Q332	8-729-900-53	TRANSISTOR DTC114EK
Q701	8-729-159-64	TRANSISTOR 2SD596

Ref.No.	Part No.	Description
Q702	8-729-159-64	TRANSISTOR 2SD596
Q703	8-729-904-78	TRANSISTOR DTD113ZK
Q704	8-729-159-64	TRANSISTOR 2SD596
R1	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R2	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W
R3	1-216-194-00	METAL GLAZE 680 5% 1/8W
R4	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R5	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R6	1-216-150-00	METAL GLAZE 10 5% 1/8W
R7	1-216-208-00	METAL GLAZE 2.7K 5% 1/8W
R8	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W
R9	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W
R10	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R11	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W
R12	1-216-201-00	(7180)...METAL GLAZE 1.3K 5% 1/8W
R12	1-216-210-00	(7080)...METAL GLAZE 3.3K 5% 1/8W
R12	1-216-218-00	(7082)...METAL GLAZE 6.8K 5% 1/8W
R13	1-216-201-00	(7180)...METAL GLAZE 1.3K 5% 1/8W
R13	1-216-210-00	(7080)...METAL GLAZE 3.3K 5% 1/8W
R13	1-216-218-00	(7082)...METAL GLAZE 6.8K 5% 1/8W
R14	1-216-232-00	METAL GLAZE 27K 5% 1/8W
R15	1-216-232-00	METAL GLAZE 27K 5% 1/8W
R16	1-216-242-00	(7080/7082) ...METAL GLAZE 68K 5% 1/8W
R16	1-216-246-00	(7180)...METAL GLAZE 100K 5% 1/8W
R17	1-216-242-00	(7080/7082) ...METAL GLAZE 68K 5% 1/8W
R17	1-216-246-00	(7180)...METAL GLAZE 100K 5% 1/8W
R18	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R19	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W
R20	1-216-202-00	METAL GLAZE 1.5K 5% 1/8W
R21	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R22	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R23	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R24	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R25	1-216-212-00	METAL GLAZE 3.9K 5% 1/8W
R26	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R27	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R28	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R29	1-216-208-00	METAL GLAZE 2.7K 5% 1/8W
R30	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R31	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R32	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R33	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R34	1-216-216-00	METAL GLAZE 5.6K 5% 1/8W
R35	1-216-232-00	METAL GLAZE 27K 5% 1/8W
R36	1-216-214-00	METAL GLAZE 4.7K 5% 1/8W
R37	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R38	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R40	1-216-194-00	METAL GLAZE 680 5% 1/8W
R41	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R42	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R43	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R101	1-216-184-00	METAL GLAZE 270 5% 1/8W
R102	1-216-258-00	METAL GLAZE 330K 5% 1/8W
R103	1-216-226-00	METAL GLAZE 15K 5% 1/8W

Ref.No.	Part No.	Description
R104	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R107	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R109	1-215-433-00	METAL 3.3K 1% 1/6W
R110	1-215-433-00	METAL 3.3K 1% 1/6W
R111	1-216-189-00	(7180)...METAL GLAZE 430 5% 1/8W
R112	1-216-218-00	METAL GLAZE 6.8K 5% 1/8W
R114	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R115	1-216-250-00	METAL GLAZE 150K 5% 1/8W
R116	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R117	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R118	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R119	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R120	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R123	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R124	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R129	1-216-230-00	METAL GLAZE 22K 5% 1/8W
R130	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R131	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R133	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R134	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R135	1-216-230-00	METAL GLAZE 22K 5% 1/8W
R136	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R137	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R139	1-216-194-00	(7180)...METAL GLAZE 680 5% 1/8W
R140	1-216-200-00	METAL GLAZE 1.2K 5% 1/8W
R201	1-216-184-00	METAL GLAZE 270 5% 1/8W
R202	1-216-258-00	METAL GLAZE 330K 5% 1/8W
R203	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R204	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R207	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R209	1-215-433-00	METAL 3.3K 1% 1/6W
R210	1-215-433-00	METAL 3.3K 1% 1/6W
R211	1-216-189-00	(7180)...METAL GLAZE 430 5% 1/8W
R212	1-216-218-00	METAL GLAZE 6.8K 5% 1/8W
R214	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R215	1-216-250-00	METAL GLAZE 150K 5% 1/8W
R216	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R217	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R218	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R219	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R220	1-216-210-00	METAL GLAZE 3.3K 5% 1/8W
R223	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R224	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R229	1-216-230-00	METAL GLAZE 22K 5% 1/8W
R230	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R231	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R233	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R234	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R235	1-216-230-00	METAL GLAZE 22K 5% 1/8W
R236	1-216-226-00	METAL GLAZE 15K 5% 1/8W
R237	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R239	1-216-194-00	(7180)...METAL GLAZE 680 5% 1/8W
R240	1-216-200-00	METAL GLAZE 1.2K 5% 1/8W
R301	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R302	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R303	1-216-238-00	METAL GLAZE 47K 5% 1/8W
R304	1-216-246-00	METAL GLAZE 100K 5% 1/8W

Ref.No.	Part No.	Description			
R305	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R306	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R307	1-215-469-00	METAL	100K	1%	1/6W
R308	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R309	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R310	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R311	1-216-174-00	METAL GLAZE	100	5%	1/8W
R312	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R313	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R314	1-216-190-00	METAL GLAZE	470	5%	1/8W
R315	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R316	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R317	1-216-150-00	METAL GLAZE	10	5%	1/8W
R318	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R319	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R320	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W
R321	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W
R322	1-216-250-00	METAL GLAZE	150K	5%	1/8W
R323	1-216-174-00	METAL GLAZE	100	5%	1/8W
R324	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R325	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R326	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R327	1-216-150-00	METAL GLAZE	10	5%	1/8W
R328	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R329	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R330	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R331	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R332	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R333	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R334	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R335	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R336	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R337	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R338	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R339	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R340	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R341	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R342	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R343	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R344	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R345	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R346	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R347	1-216-186-00	METAL GLAZE	330	5%	1/8W
R348	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R349	1-216-186-00	METAL GLAZE	330	5%	1/8W
R350	1-216-183-00	METAL GLAZE	240	5%	1/8W
R351	1-216-178-00	METAL GLAZE	150	5%	1/8W
R352	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R353	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R354	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R355	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R356	1-249-451-11	CARBON	2.2	5%	1/4W
R357	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R358	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R359	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R360	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R361	1-216-222-00	METAL GLAZE	10K	5%	1/8W

Ref.No.	Part No.	Description			
R362	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R363	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R364	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R365	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R366	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R367	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R368	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R369	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R370	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R371	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R372A	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R373	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R374	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R375	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R376	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R377	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R378	1-216-206-00	(7082)...METAL GLAZE	2.2K	5%	1/8W
R379	1-216-206-00	(7082)...METAL GLAZE	2.2K	5%	1/8W
R380	1-216-190-00	METAL GLAZE	470	5%	1/8W
R381	1-216-182-00	METAL GLAZE	220	5%	1/8W
R382	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R383	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R384	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R385	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R386	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R387	1-216-230-00	METAL GLAZE	22K	5%	1/8W
R388	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R389	1-216-254-00	METAL GLAZE	220K	5%	1/8W
R390	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R391	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R392	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R393	1-216-190-00	METAL GLAZE	470	5%	1/8W
R394	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R396	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R401	1-216-262-00	METAL GLAZE	470K	5%	1/8W
R402	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R403	1-216-236-00	METAL GLAZE	39K	5%	1/8W
R501	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R502	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R503	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R504	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R551	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R552	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R553	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R601	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R602	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R603	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R604	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R651	1-216-234-00	METAL GLAZE	33K	5%	1/8W
R652	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R653	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R701	1-216-176-00	METAL GLAZE	120	5%	1/8W
R702	1-216-176-00	METAL GLAZE	120	5%	1/8W
R703	1-216-176-00	METAL GLAZE	120	5%	1/8W
R704	1-216-176-00	METAL GLAZE	120	5%	1/8W
R706	1-216-182-00	METAL GLAZE	220	5%	1/8W
R707	1-216-182-00	METAL GLAZE	220	5%	1/8W

Ref.No.	Part No.	Description
R708	1-216-176-00	METAL GLAZE 120 5% 1/8W
R709	1-216-176-00	METAL GLAZE 120 5% 1/8W
R710	1-216-240-00	METAL GLAZE 56K 5% 1/8W
R711	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R712	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R713	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R714	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R718	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R719	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R751	1-216-176-00	METAL GLAZE 120 5% 1/8W
R752	1-216-176-00	METAL GLAZE 120 5% 1/8W
R753	1-216-176-00	METAL GLAZE 120 5% 1/8W
R754	1-216-176-00	METAL GLAZE 120 5% 1/8W
R756	1-216-182-00	METAL GLAZE 220 5% 1/8W
R757	1-216-182-00	METAL GLAZE 220 5% 1/8W
R758	1-216-176-00	METAL GLAZE 120 5% 1/8W
R759	1-216-176-00	METAL GLAZE 120 5% 1/8W
R791	1-216-262-00	METAL GLAZE 470K 5% 1/8W
R792	1-216-240-00	METAL GLAZE 56K 5% 1/8W
R801	1-216-238-00	(7082)...METAL GLAZE 47K 5% 1/8W
R802	1-216-242-00	(7082)...METAL GLAZE 68K 5% 1/8W
R803	1-216-214-00	(7082)...METAL GLAZE 4.7K 5% 1/8W
R804	1-216-246-00	(7082)...METAL GLAZE 100K 5% 1/8W
R805	1-216-190-00	(7082)...METAL GLAZE 470 5% 1/8W
R806	1-216-266-00	(7082)...METAL GLAZE 680K 5% 1/8W
R807	1-216-254-00	(7082)...METAL GLAZE 220K 5% 1/8W
R808	1-216-216-00	(7082)...METAL GLAZE 5.6K 5% 1/8W
R809	1-216-210-00	(7082)...METAL GLAZE 3.3K 5% 1/8W
R810	1-216-216-00	(7082)...METAL GLAZE 5.6K 5% 1/8W
R811	1-216-210-00	(7082)...METAL GLAZE 3.3K 5% 1/8W
R812	1-216-265-00	(7082)...METAL GLAZE 620K 5% 1/8W
R813	1-216-238-00	(7082)...METAL GLAZE 47K 5% 1/8W
R814	1-216-234-00	(7082)...METAL GLAZE 33K 5% 1/8W
R815	1-216-224-00	(7082)...METAL GLAZE 12K 5% 1/8W
R816	1-216-255-00	(7082)...METAL GLAZE 240K 5% 1/8W
R817	1-216-244-00	(7082)...METAL GLAZE 82K 5% 1/8W
R818	1-216-238-00	(7082)...METAL GLAZE 47K 5% 1/8W
R819	1-216-190-00	(7082)...METAL GLAZE 470 5% 1/8W
R820	1-216-238-00	(7082)...METAL GLAZE 47K 5% 1/8W
R821	1-216-222-00	(7082)...METAL GLAZE 10K 5% 1/8W
R822	1-216-224-00	(7082)...METAL GLAZE 12K 5% 1/8W
R851	1-216-198-00	METAL GLAZE 1K 5% 1/8W
RV1	1-228-994-00	RES, ADJ, CARBON 10K
RV101	1-226-773-11	RES, ADJ, METAL GLAZE 22K
RV102	1-226-773-11	(7180)...RES, ADJ, METAL GLAZE 22K
RV201	1-226-773-11	(7180)...RES, ADJ, METAL GLAZE 22K
RV202	1-226-773-11	RES, ADJ, METAL GLAZE 22K
RV801	1-226-769-00	(7082)...RES, ADJ, METAL GLAZE 100
S10	3-344-155-01	CONTACT (WITH SWITCH)
S11	1-571-138-11	SWITCH, PUSH (1 KEY)(F/R)
S12	1-571-138-11	SWITCH, PUSH (1 KEY)(TAPE-IN)
S591	1-571-521-11	SWITCH, SLIDE (2SP/4SP)
S701	1-571-938-11	(7082).....SWITCH, KEY BOARD (DSPL)
S701	1-571-938-11	(7080/7180)...SWITCH, KEY BOARD (LOCAL)
S702	1-571-938-11	(7082).....SWITCH, KEY BOARD (SENS)
S702	1-571-938-11	(7080/7180)...SWITCH, KEY BOARD (MONO)

Ref.No.	Part No.	Description
S703	1-571-938-11	SWITCH, KEY BOARD (A.MEM/M.SCAN)
S704	1-571-938-11	SWITCH, KEY BOARD (LOUD)
S705	1-554-813-41	SWITCH, KEY BOARD (MUTE)
S706	1-554-813-41	SWITCH, KEY BOARD (SEL -)
S707	1-554-813-41	SWITCH, KEY BOARD (SEL)
S708	1-554-813-41	SWITCH, KEY BOARD (SEL +)
S709	1-554-813-41	SWITCH, KEY BOARD (1 INTRO)
S710	1-554-813-41	SWITCH, KEY BOARD (2 REPEAT)
S711	1-554-813-41	SWITCH, KEY BOARD (3 BL.SKIP)
S712	1-554-813-41	SWITCH, KEY BOARD (4 METAL)
S713	1-554-813-41	SWITCH, KEY BOARD (5 DOLBY)
S714	1-554-813-41	SWITCH, KEY BOARD (6)
S715	1-554-813-41	SWITCH, KEY BOARD (AMS SEEK -)
S716	1-554-813-41	SWITCH, KEY BOARD (AMS SEEK +)
S717	1-554-813-41	SWITCH, KEY BOARD (MAN/REW)
S718	1-554-813-41	SWITCH, KEY BOARD (MAN/FF)
S719	1-554-813-41	SWITCH, KEY BOARD (EJECT)
S720	1-554-813-41	SWITCH, KEY BOARD (POWER)
S721	1-554-813-41	SWITCH, KEY BOARD (PLAY/DIR)
S722	1-554-813-41	(7082).....SWITCH, KEY BOARD (FM/AM)
S722	1-571-938-11	(7080/7180)...SWITCH, KEY BOARD (FM)
S723	1-554-813-41	(7082).....SWITCH, KEY BOARD (SDK)
S723	1-571-938-11	(7080/7180)...SWITCH, KEY BOARD (AM)
S724	1-554-813-41	SWITCH, KEY BOARD (ILL)
S725	1-554-813-41	SWITCH, KEY BOARD (RESET)
S901	1-570-771-11	SWITCH (POWER)
X1	1-567-250-11	OSCILLATOR, CERAMIC
X2	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)
X301	1-567-170-00	OSCILLATOR, CERAMIC (4.19MHz)

ACCESSORY & PACKING MATERIAL

3-302-126-01	SCREW, TAPPING (DIA. 5X20)
*3-307-051-01	CARDBOARD (A)
3-310-655-01	SUPPORT (ND), FITTING
3-336-617-01	BAG, PROTECTION
3-349-410-01	BUSHING
*3-349-456-01	BRACKET (FIX, LEFT)
*3-349-457-01	BRACKET (FIX, RIGHT)
*3-349-458-01	FRAME, ORNAMENTAL
*3-349-488-01	CUSHION (UPPER)
*3-349-489-01	CUSHION (LOWER)
*3-353-412-01	(7180)...INDIVIDUAL CARTON
*3-353-414-01	(7080)...INDIVIDUAL CARTON
*3-353-416-01	(7082)...INDIVIDUAL CARTON
3-750-051-11	(7080)...MANUAL, INSTRUCTION
3-750-051-21	(7180)...MANUAL, INSTRUCTION
3-750-051-41	(7080)...MANUAL, INSTRUCTION
3-750-051-51	(7082)...MANUAL, INSTRUCTION
3-750-052-11	(7080,7180)...MANUAL, INSTRUCTION
3-750-052-41	(7080)...MANUAL, INSTRUCTION
3-750-052-51	(7082)...MANUAL, INSTRUCTION
*3-764-869-11	(7082)...INSTRUCTION, DBP CAUTION
7-682-583-04	SCREW +P 5X40
7-684-025-04	N 5, TYPE 2

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